

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	29546	(("10" or "11" or "12" or "13" or "14" or "15" or "16" or "17" or "20" or "25" or "30" or "35" or "40" or "45" or "50" or "55" or "60") adj5 mW)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:00
L2	491	(("10" or "11" or "12" or "13" or "14" or "15" or "16" or "17" or "20" or "25" or "30" or "35" or "40" or "45" or "50" or "55" or "60") adj5 (micron or ".mu. m")) with (laser near5 (focuss\$4 or spot))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:01
L3	77	(("30" or "35" or "40" or "45" or "50") adj5 (mW)) with (laser near5 (focuss\$4 or spot))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:03
L4	3163	(("30" or "35" or "40" or "45" or "50") adj5 (mW)) with (laser)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:06
L5	44	I2 and I4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:04
L6	303030	((optical or laser or information) near5 (medium or media or disk or disc)).ti, ab.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:07
L7	400	I4 and I6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:07
L8	542598	((optical or laser or information) near5 (medium or media or disk or disc))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:07
L9	28	I2 and I6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:11

EAST Search History

L10	408	I4 same I8	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:11
L11	208	(I4 same I8) and I6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:11
L12	8374	(I8 same dye)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:11
L13	55	I10 and I12	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 16:12

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	101	(leucophthalocyanine or ((leuco or coloreless) near5 phthalocyanine))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:32
L2	114	(leucophthalocyanine or ((leuco or colorless or plae or (color near2 less)) near5 phthalocyanine))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:35
L3	22	(thermal or heat or thermally or develop\$6) same l2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:35
L4	2	ep-633145-\$.did.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:28
L5	3	(ir or infrared) same l2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:30
L6	1	(leucophthalocyanine or phthalocyanine) same diiminoisoidol\$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:33
L7	590	(leucophthalocyanine or phthalocyanine) same (ascorbic or hydrazineor formamide or hydroquinone or phenidone or pyroolidone)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:35
L8	118	(leucophthalocyanine or ((leuco or colorless or pale or (color near2 less)) near5 phthalocyanine))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:35
L9	22	(thermal or heat or thermally or develop\$6) same l8	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:35

EAST Search History

L10	72	l8 and (ascorbic or hydrazineor formamide or hydroquinone or phenidone or pyrozolidone or diiminoisindol\$6)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 08:36
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EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	233	((leuco or leucodye) with ((ir or infrared) near5 (dye or pigment or absorb\$4)))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 10:28
L2	454799	((optical or information or laser or video or compact or dvd or cd) near5 (disk or disc))	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 10:29
L3	660827	((optical or information or laser or video or compact) near5 (disk or disc)) or cd or dvd)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 10:29
L4	42	I3 and I1	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 10:29
L5	18	I4 and @ad<"20030905"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2006/05/04 10:30

Dear valued STN customer,

In an effort to enhance your experience with STN, we would
like to better understand what you find useful. Please take
approximately 5 minutes to complete a web survey.

If you provide us with your name, login ID, and e-mail address, you
will be entered in a drawing to win a free iPod(R). Your responses
will be kept confidential and will help us make future improvements
to STN.

***Take survey: <http://www.zoomerang.com/survey.zgi?p=WEB2259HNKWTUW> ***

Thank you in advance for your participation.

* * * * * STN Columbus * * * * *

FILE 'HOME' ENTERED AT 09:06:13 ON 04 MAY 2006

=> fiule caplus

FIULE IS NOT A RECOGNIZED COMMAND

The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).

=> file caplus

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'CAPLUS' ENTERED AT 09:06:24 ON 04 MAY 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 4 May 2006 VOL 144 ISS 19

FILE LAST UPDATED: 3 May 2006 (20060503/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> s us 2005-0053864/pn

L1 1 US 2005-0053864/PN
(US2005053864/PN)

=> file reg

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	2.41	2.62

FILE 'REGISTRY' ENTERED AT 09:06:54 ON 04 MAY 2006

USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.

PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 3 MAY 2006 HIGHEST RN 882736-15-4

DICTIONARY FILE UPDATES: 3 MAY 2006 HIGHEST RN 882736-15-4

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

```
*****
*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*
*****
```

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

REGISTRY includes numerically searchable data for experimental and
predicted properties as well as tags indicating availability of
experimental property data in the original document. For information
on property searching in REGISTRY, refer to:

<http://www.cas.org/ONLINE/UG/regprops.html>

```
=> tra rn l1
L2      TRANSFER L1 1- RN :      3 TERMS
L3      3 L2
```

```
=> d kiwc
'KIWC' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
```

The following are valid formats:

Substance information can be displayed by requesting individual
fields or predefined formats. The predefined substance formats
are: (RN = CAS Registry Number)

```
REG      - RN
SAM      - Index Name, MF, and structure - no RN
FIDE     - All substance data, except sequence data
IDE      - FIDE, but only 50 names
SQIDE    - IDE, plus sequence data
SQIDE3   - Same as SQIDE, but 3-letter amino acid codes are used
SQD      - Protein sequence data, includes RN
SQD3     - Same as SQD, but 3-letter amino acid codes are used
SQN      - Protein sequence name information, includes RN

CALC     - Table of calculated properties
EPROP    - Table of experimental properties
PROP     - EPROP and CALC
```

Any CA File format may be combined with any substance format to
obtain CA references citing the substance. The substance formats
must be cited first. The CA File predefined formats are:

```
ABS      -- Abstract
APPS     -- Application and Priority Information
BIB      -- CA Accession Number, plus Bibliographic Data
CAN      -- CA Accession Number
CBIB     -- CA Accession Number, plus Bibliographic Data (compressed)
IND      -- Index Data
IPC      -- International Patent Classification
PATS     -- PI, SO
STD      -- BIB, IPC, and NCL
```

```
IABS     -- ABS, indented, with text labels
IBIB     -- BIB, indented, with text labels
```

ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):scan
'SCAN' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

REG - RN
SAM - Index Name, MF, and structure - no RN
FIDE - All substance data, except sequence data
IDE - FIDE, but only 50 names
SQIDE - IDE, plus sequence data
SQIDE3 - Same as SQIDE, but 3-letter amino acid codes are used
SQD - Protein sequence data, includes RN
SQD3 - Same as SQD, but 3-letter amino acid codes are used
SQN - Protein sequence name information, includes RN

CALC - Table of calculated properties
EPROP - Table of experimental properties
PROP - EPROP and CALC

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

ABS -- Abstract
APPS -- Application and Priority Information
BIB -- CA Accession Number, plus Bibliographic Data
CAN -- CA Accession Number
CBIB -- CA Accession Number, plus Bibliographic Data (compressed)
IND -- Index Data
IPC -- International Patent Classification
PATS -- PI, SO
STD -- BIB, IPC, and NCL

IABS -- ABS, indented, with text labels
IBIB -- BIB, indented, with text labels
ISTD -- STD format, indented

OBIB ----- AN, plus Bibliographic Data (original)
OIBIB ----- OBIB, indented with text labels

SBIB ----- BIB, no citations
SIBIB ----- IBIB, no citations

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

```
HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):bas
'BAS' IS NOT A VALID FORMAT FOR FILE 'REGISTRY'
```

The following are valid formats:

Substance information can be displayed by requesting individual fields or predefined formats. The predefined substance formats are: (RN = CAS Registry Number)

```
REG      - RN
SAM      - Index Name, MF, and structure - no RN
FIDE     - All substance data, except sequence data
IDE      - FIDE, but only 50 names
SQIDE    - IDE, plus sequence data
SQIDE3   - Same as SQIDE, but 3-letter amino acid codes are used
SQD      - Protein sequence data, includes RN
SQD3     - Same as SQD, but 3-letter amino acid codes are used
SQN      - Protein sequence name information, includes RN

CALC     - Table of calculated properties
EPROP    - Table of experimental properties
PROP     - EPROP and CALC
```

Any CA File format may be combined with any substance format to obtain CA references citing the substance. The substance formats must be cited first. The CA File predefined formats are:

```
ABS      -- Abstract
APPS     -- Application and Priority Information
BIB      -- CA Accession Number, plus Bibliographic Data
CAN      -- CA Accession Number
CBIB     -- CA Accession Number, plus Bibliographic Data (compressed)
IND      -- Index Data
IPC      -- International Patent Classification
PATS     -- PI, SO
STD      -- BIB, IPC, and NCL

IABS     -- ABS, indented, with text labels
IBIB     -- BIB, indented, with text labels
ISTD     -- STD format, indented

OBIB     ----- AN, plus Bibliographic Data (original)
OIBIB    ----- OBIB, indented with text labels

SBIB     ----- BIB, no citations
SIBIB    ----- IBIB, no citations
```

The ALL format gives FIDE BIB ABS IND RE, plus sequence data when it is available.

The MAX format is the same as ALL.

The IALL format is the same as ALL with BIB ABS and IND indented, with text labels.

For additional information, please consult the following help messages:

```
HELP DFIELDS -- To see a complete list of individual display fields.
HELP FORMATS -- To see detailed descriptions of the predefined formats.
ENTER DISPLAY FORMAT (IDE):all
```

```
L3      ANSWER 1 OF 3  REGISTRY  COPYRIGHT 2006 ACS on STN
RN      ***145017-91-0***      REGISTRY
ED      Entered STN:  25 Dec 1992
CN      Brilliant Blue B (9CI)  (CA INDEX NAME)
MF      Unspecified
CI      MAN
SR      CA
```

LC STN Files: CA, CAPLUS, TOXCENTER, USPATFULL
DT.CA Caplus document type: Journal; Patent
RL.P Roles from patents: BIOL (Biological study); USES (Uses)
RL.NP Roles from non-patents: ANST (Analytical study); PROC (Process); NORL
(No role in record)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***
8 REFERENCES IN FILE CA (1907 TO DATE)
8 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 142:306514 CA
TI Phthalocyanine precursors in infrared sensitive compositions
IN Dessauer, Rolf
PA USA
SO U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM G11B007-24
ICS G03C005-00
NCL 430270150
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005053864	A1	20050310	US 2003-656503	20030905
	WO 2005026839	A2	20050324	WO 2004-US28364	20040831
	WO 2005026839	A3	20050616		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRAI US 2003-656503 20030905
AB Compns. and methods for prodn. of color images using phthalocyanine
precursor-contg. color forming compns. are described. The color forming
compn. can include a phthalocyanine precursor, an IR absorber, and a
binder. The color forming compn. can be optimized for development in less
than 1 ms using IR radiation. The phthalocyanine precursor can include a
phthalocyanine and a leaving group, or groups, each coordinated to a
metal. The color forming compns. are ambient light stable and are useful
in forming images on a wide variety of substrates and optical disks.
ST phthalocyanine precursor IR sensitive compn optical disk
IT Optical disks
(phthalocyanine precursors in IR sensitive compns. for)
IT 81478-26-4 145017-91-0, Brilliant Blue B
RL: TEM (Technical or engineered material use); USES (Uses)
(phthalocyanine precursors in IR sensitive compns.)
IT 69415-30-1
RL: TEM (Technical or engineered material use); USES (Uses)
(phthalocyanine precursors in IR sensitive compns. for)

REFERENCE 2

AN 127:297523 CA
TI Heat stabilizers for dyes, heat-resistant dyes, and process of pigmented
materials manufacture
IN Sakane, Masayasu; Ishibashi, Tatsuo; Inago, Yoshihide; Suyama, Hiroshi;
Okumura, Shuzo
PA Nissha Printing Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent

LA Japanese
IC ICM C09B067-00
ICS G02B005-20; G02B005-22
CC 57-1 (Ceramics)
Section cross-reference(s): 37, 41, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09235483	A2	19970909	JP 1996-71151	19960229
PRAI	JP 1996-71151		19960229		
AB	The heat stabilizers contain org. S compds., org. P compds., and/or phenolic compds. The heat-resistant dyes contain the stabilizes and dyes. Substrates are pigmented by using the stabilizers and the dyes which are applied sep. or by using the heat-resistant dyes. The dyes are esp. suitable for coloring plastics, glass, metals, etc. Thus, an Al2O3-coated glass plate was processed to form a black matrix, green and red pixels, soaked in a bath of Brilliant Blue B to form a blue pixel, further soaked in mercaptopropionic acid soln., and washed to give a product.				
ST	heat stabilizer org sulfur dye; phosphorus compd heat stabilizer dye; phenolic compd heat stabilizer dye; mercaptopropionic acid heat stabilizer dye; acid dye heat stabilizer mercaptopropionic acid; glass heat resistant dye pigmented				
IT	Dyeing Heat stabilizers (heat stabilizers contg. org. S, P, or phenols for heat-resistant dyes and process of pigmented materials manuf.)				
IT	Glass, processes RL: PEP (Physical, engineering or chemical process); PROC (Process) (heat stabilizers contg. org. S, P, or phenols for heat-resistant dyes and process of pigmented materials manuf.)				
IT	147-93-3, Thiosalicylic acid 637-89-8, 4-Hydroxythiophenol 1034-49-7, Methylenetriphenylphosphonium bromide 30232-12-3, Mercaptopropionic acid RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (heat stabilizers contg. org. S, P, or phenols for heat-resistant dyes and process of pigmented materials manuf.)				
IT	145017-91-0, Brilliant Blue B 197179-34-3, Chuganol Blue G 197179-65-0, Sandolan Cyanine N-GS RL: TEM (Technical or engineered material use); USES (Uses) (heat stabilizers contg. org. S, P, or phenols for heat-resistant dyes and process of pigmented materials manuf.)				

REFERENCE 3

AN 125:230891 CA
TI Crosslinked tinted polymers
IN Mueller, Achim; Poehlmann, Thomas; Seiferling, Bernhard
PA Ciba-Geigy A.-G., Switz.
SO PCT Int. Appl., 63 pp.
CODEN: PIXXD2
DT Patent
LA English
IC ICM G02B001-04
ICS C08F008-00
CC 63-7 (Pharmaceuticals)
Section cross-reference(s): 35, 36

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9624076	A1	19960808	WO 1996-EP252	19960123
	W: AL, AM, AU, BB, BG, BR, CA, CN, CZ, EE, FI, GE, HU, IS, JP, KP, KR, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, SG, SI, SK, TR, TT, UA, US, UZ, VN, AZ, BY, KG, KZ, RU, TJ, TM RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
	TW 425410	B	20010311	TW 1995-84104519	19950506
	AU 9645386	A1	19960821	AU 1996-45386	19960123
	EP 807268	A1	19971119	EP 1996-901320	19960123
	EP 807268	B1	19990630		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE				
	JP 10513409	T2	19981222	JP 1996-523213	19960123

AT 181774	E	19990715	AT 1996-901320	19960123
ES 2134585	T3	19991001	ES 1996-901320	19960123
ZA 9600823	A	19960805	ZA 1996-823	19960202
US 5871675	A	19990216	US 1997-875532	19970918

PRAI CH 1995-316 19950203
 WO 1996-EP252 19960123

AB The invention relates to a novel process for the prodn. of tinted moldings, in particular tinted contact lenses, in which a crosslinkable tinted polymer comprising units contg. a crosslinkable group and units contg. a reative dye radical is crosslinked in soln., and to tinted moldings, in particular tinted contact lenses, obtainable by this process. The process invention likewise relates to novel crosslinkable tinted polymers tinted polymers comprising units contg. a crosslinkable group and units contg. a reactive dye radical which can be employed in the novel process, in particular derivs. of a polyvinyl alc. having a mol. wt. of at least about 2000 and crosslinked tinted polymers. E.g., a poly(vinyl alc.) soln. reacted with methacrylamidoacetaldehyde di-Me acetal was mixed with Na2CO3 soln. and Duasyn-Rot R-F3B soln.

ST polymer crosslinked tinted contact lens
 IT Dyes
 (crosslinked tinted polymers for contact lenses)

IT Vinyl acetal polymers
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (crosslinked tinted polymers for contact lenses)

IT Lenses
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (contact, crosslinked tinted polymers for contact lenses)

IT 2580-78-1, Reactive Blue 19 12226-47-0, Reactive Yellow 15 12236-79-2, C.I. Reactive Black 14 12236-86-1, Reactive Blue 21 12236-90-7, Reactive blue 38 12237-16-0, Reactive yellow 37 12731-63-4, Reactive black 31 17095-24-8, Reactive Black 5 19526-81-9 20262-58-2, Reactive orange 16 20317-19-5, Reactive yellow 17 71902-15-3, Reactive orange 78 98114-32-0, Reactive Red 180 128416-19-3, Brilliant blue BB 145017-91-0, Brilliant blue B
 RL: MOA (Modifier or additive use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (crosslinked tinted polymers for contact lenses)

IT 920-46-7, Methacryloyl chloride 22483-09-6, Aminoacetaldehyde dimethyl acetal
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (crosslinked tinted polymers for contact lenses)

IT 95984-11-5P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (crosslinked tinted polymers for contact lenses)

IT 25086-89-9P, Vinyl acetate-N-vinylpyrrolidone copolymer 36521-72-9P 181798-25-4P 181798-26-5P
 RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (crosslinked tinted polymers for contact lenses)

REFERENCE 4

AN 119:278212 CA
 TI Separation and identification of dyes in municipal wastewater
 AU Dai, Shugui; You, Daoxin; Bao, Mingliang; Li, Xiaoxin; Lei, Gongmin; Xie, Huasheng; Song, Tiedong
 CS Dep. Environ. Sci., Nankai Univ., Tianjin, 300071, Peop. Rep. China
 SO Huanjing Huaxue (1993), 12(3), 225-30
 CODEN: HUHADB; ISSN: 0254-6108

DT Journal
 LA Chinese
 CC 61-3 (Water)
 Section cross-reference(s): 41, 60, 80

AB Dyes in the secondary effluent of a municipal wastewater treatment plant were extd. with dichloromethane in a multi-step process. After purifn. and pre-sepn. of the ext. on a silica gel column, 7 dyes were tentatively identified by reverse-phase HPLC and checked with TLC. Subsequently, concns. of the dyes were quant. detd. by HPLC.

ST dye detn secondary wastewater HPLC TLC
 IT Dyes
 (detn. of, in wastewater, by reverse phase HPLC and TLC following extn.)

with dichloromethane)
 IT 569-64-2, Malachite green 633-96-5, Orange II 145017-91-0, Brilliant Blue B 145018-65-1, Peach Blossom 3BM 151438-17-4, Dark Yellow GG 151438-37-8, Disperse Red P 4G 151439-57-5, Yellow 3G
 RL: ANT (Analyte); ANST (Analytical study)
 (detn. of, in wastewater, by reverse phase HPLC following extn. with dichloromethane)
 IT 7732-18-5, Water, analysis
 RL: ANST (Analytical study)
 (dye detn. in waste-, by reverse phase HPLC following extn. with dichloromethane)
 IT 75-09-2, Dichloromethane, uses
 RL: USES (Uses)
 (dye extn. by, from wastewater, for detn. by reverse phase HPLC and TLC)

REFERENCE 5

AN 118:11090 CA
 TI Photocatalytic decolorization of hydrophilic dye-containing wastewater by sunlight
 AU You, Daoxin; Bao, Mingliang; Li, Xiaoxin; Dai, Shugui; Li, Xiangong
 CS Dep. Environ. Sci., Nankai Univ., 300071, Peop. Rep. China
 SO Shuichuli Jishu (1992), 18(2), 90-5
 CODEN: SHJIEG; ISSN: 1000-3770
 DT Journal
 LA Chinese
 CC 60-1 (Waste Treatment and Disposal)
 Section cross-reference(s): 40, 74
 AB The decolorization of hydrophilic dye-contg. wastewater by sunlight was studied in the presence of the semiconductor catalyst powder. The efficiency of decolorization was related to pH of wastewater and amt. of photocatalyst used. Bubbling with O and addn. of H2O2 accelerated the photodecolorization process. After 12-20 h of irradiation, the color removal rates of multi-dye solns. were <95%. As compared with sole sunlight irradiation, this method had the advantages of easier operation and lesser investment and higher decolorization efficiency.
 ST solar photocatalytic decolorization wastewater hydrophilic dye
 IT Dyes
 (removal of hydrophilic, from wastewater, solar photocatalytic process for)
 IT Wastewater treatment
 (decolorization, photocatalytic, solar, hydrophilic dye removal by)
 IT 633-96-5, Acid orange II 145017-91-0, Brilliant Blue B 145018-65-1, Peach Blossom 3BM
 RL: REM (Removal or disposal); PROC (Process)
 (removal of, from wastewater, solar photocatalytic process for)

REFERENCE 6

AN 74:149228 CA
 TI Liquid developer for electrophotography
 PA Mita Industrial Co., Ltd.
 SO Fr. Demande, 24 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 IC G02G
 CC 74 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2026483		19701023	FR	
	DE 1963564			DE	
	GB 1282058			GB	
	JP 50040347		19750414	JP 1973-93974	19730821
	US 3720619		19730313	US	19691216
PRAI	JP		19681218		
AB	An electrophotog. liq. developer consists of a dispersion of the salt product of the reaction between .gtoreq.1 dye or dye base contg. amino groups, and .gtoreq.1 fatty acid having .gtoreq.8 C atoms, in a liq. vehicle of high elec. resistance in which the acid is sol. but the salt is				

insol. The fatty acid is present at .gtoreq.4 moles/mole of dye or dye base, the quantity being sufficient to disperse the salt in the liq. in a finely divided stable state but not so excessive as to cause any diffusion of the image. The acid has preferably 10-30 C atoms and can be oleic (10-400 moles/mole dye), stearic (4-40), linoleic (10-200), capric (40-200), lauric (10-200), or palmitic (10-100). The liq. medium has an elec. resistivity of .gtoreq.1012 ohm-cm and is a hydrocarbon, while the dye or dye base is chosen from among the basic azo, diphenylmethane or triphenylmethane series, the acridines, pyronines, rhodamines, quinone imines, anthraquinones, or disperse azo dyes and is preferably Nigrosine Base (Color Index No. 50,415B), Victoria Blue Base (C.I. 4045B) and Induline (C.I. 50,400). Thus, to oleic acid 20 g, heated to 50-60.degree., was added gradually and with agitation Nigrosine Base 1 g. Agitation was continued while the temp. was raised to 95.degree., and the soln. was kept at this temp. for 1 hr and was allowed to cool to 20-30.degree.. The reaction product, 2 g, was added to 1 l. of Isopar H (Esso Standard Petroleum Co.), an isoparaffin solvent, to give a fine dispersion of particles. This liq. developer has an excellent suspension quality and forms practically no deposit.

ST electrophotog liq developer

IT Photography

(electro-, liq. developers for, contg. dye base-fatty acid reaction products)

IT 57-10-3, Palmitic acid 57-11-4, Stearic acid 60-33-3, Linoleic acid 112-80-1, Oleic acid 143-07-7, Lauric acid

RL: USES (Uses)

(reaction products with dye bases, electrographic liq. developers contg.)

IT 8005-02-5

RL: USES (Uses)

(reaction products with fatty acids, electrophotographic liq. developers contg.)

IT 61-73-4, C.I. Solvent Blue 8 6786-83-0

RL: USES (Uses)

(reaction products with linoleic acid, electrophotographic papers contg.)

IT 4482-25-1 145017-91-0, Brilliant Blue B

RL: USES (Uses)

(reaction products with oleic acid, electrophotographic papers contg.)

IT 52080-58-7

RL: USES (Uses)

(reaction products with palmitic acid, electrophotographic papers contg.)

IT 3248-93-9, C.I. Solvent Red 41 8004-98-6

RL: USES (Uses)

(reaction products with stearic acid, electrophotographic papers contg.)

REFERENCE 7

AN 57:121 CA

TI Palladium(II)-specific atomic groupings and their importance in analysis

AU Popa, Grigore

CS C. I. Parhon-Univ., Bucharest, Rom.

SO Wissenschaftliche Zeitschrift - Friedrich-Schiller-Universitaet Jena,

Mathematisch-Naturwissenschaftliche Reihe (1961), 10, 5-10

CODEN: WZFMA4; ISSN: 0448-9454

DT Journal

LA Unavailable

CC 2 (Analytical Chemistry)

AB Colors were tabulated for a PdCl₂-NaOAc soln. and various indicators: benzyl orange (I) yellow-brown, di-Methyl yellow red-brown, methyl orange (II) brown, Na 4-diethylaminoazobenzene-4'-sulfonate brown, vesurin redbrown, Magnison I (III) brown, Orange II red-brown, Fast Red red-violet, Palatine Chrome Blue 63 orange, Alizarin Red B orange, Anthracene Red PG coffee-brown, Azo Fuchsin 6B violet, Fast Red 2B red-violet, Brilliant Red G red, Ponceau BO Extra red, Brilliant Blue B dark-blue, Diamond Brown B red-brown, Diamine Blue FFL darkblue, Benzo Light Violet BL blue, Sirius Light Blue B2R dark-blue, hydrazine yellow-brown, methyl red (IV) redviolet. Those best suited for colorimetric detn. of Pd were: I-IV and Tropeolin O, Tropeolin OO, and tartrazine.

IT Anthracene Red PG
 Benzo Light Violet BL
 Brilliant Red G
 Diamine Blue FFL
 Fast Red 2B
 Palatine Chrome Blue 6B
 Ponceau BO Extra
 Sirius Light Blue B2R
 (in palladium detn.)

IT 7440-05-3, Palladium
 (anal., detn., reagents for)

IT 62758-12-7, Benzenesulfonic acid, p-[p-(diethylamino)phenyl]azo]-, sodium salt
 (in Pd detn.)

IT 60-11-7, C.I. Solvent Yellow 2 72-48-0, Anthraquinone, 1,2-dihydroxy-74-39-5, Resorcinol, 4-[(p-nitrophenyl)azo]- 493-52-7, C.I. Acid Red 2 502-02-3, Benzenesulfonic acid, p-[p-(dimethylamino)phenyl]azo]- 547-57-9, C.I. Acid Orange 6 554-73-4, C.I. Acid Orange 5 633-96-5, C.I. Acid Orange 7 1934-21-0, C.I. Acid Yellow 23 2429-80-3, Benzyl Orange 4321-69-1, C.I. Acid Violet 7 25849-38-1, C.I. Mordant Brown 13 77045-20-6, Fast Red 145017-91-0, Brilliant Blue B
 (in palladium detn.)

REFERENCE 8

AN 51:94475 CA
 TI Chromatography of synthetic colors in pharmaceutical preparations used internally
 AU Delfina, J. Maria Pla; Macian, R. Salazar
 SO Galenica Acta (1956), 9, 243-86
 CODEN: GLNAA6; ISSN: 0016-4011
 DT Journal
 LA Unavailable
 CC 17 (Pharmaceuticals, Cosmetics, and Perfumes)
 AB Pharmaceutical preps. (10 g.) were extd. with H₂O at 60.degree.. The insol. portion (I) was reextd. with 5% tartaric acid at 60-80.degree., absorbed on wool, eluted with 0.02N NH₃, concd., and developed on Schleicher & Schull 2043A paper with H₂O satd. BuOH or (ClCH₂)₂CHOH. Thus were detd. (dye, Color Index No.): Acid Yellow (16), tartrazine (640), Quinoline Yellow WS (801), Indanthrene Blue RS (1106), Indigotine I (1180), azorubine (179), Naphthol Red GR (182), amaranth (184), Ponceau 4R (185), Ponceau 6R (186), Yellow Orange S (-), and Brilliant Crocein MOO (252). The sol. fraction was split into liq. A (II) and B (III). II was acidified with 5% tartaric acid, absorbed, and eluted as above, and extd. with AmOH. The aq. phase contained the same dyes as I. The alc. phase contained Brilliant Blue B, Brilliant Indocyanine 6B, rocceline (176), Ruby Litol BK (163), Brilliant Crocein MOO (252), Acid Violet 4B (698), and Formyl Violet (697). III was treated with 5% NaCl, and the colors were absorbed on wool, eluted with N tartaric acid, and extd. with CHCl₃. The ext. contained Auramine O (655), Victoria Blue B (729), Victoria Blue R (828), fuchsin (677), Rhodamine B (749), Brilliant Green (662), and methyl violet (680). Pictures of paper chromatograms are presented with detailed exptl. procedures.

IT Pharmaceuticals
 (assay, chromatog. of dyes in)

IT Amaranth (the dye)
 (chromatog. of)

IT Brilliant Green M
 Indigotin I
 Ruby Litol BK
 (chromatog. of)

IT 81-77-6, Indanthrene 81-88-9, Rhodamine B 633-03-4, Brilliant Green 1325-93-5, Victoria Blue 1658-56-6, Roccelline 1934-21-0, Tartrazine O 2185-86-6, Victoria Blue R 2465-27-2, Auramine O 2611-82-7, Ponceau 4R 2706-28-7, Acid Yellow 2766-77-0, Ponceau 6R 2783-94-0, Yellow Orange S 3244-88-0, Acid Fuchsin 3567-69-9, Azorubine 4129-84-4, Acid Violet 4B 6104-59-2, Brilliant Indocyanine 6B 6448-95-9, Naphthol Red 8004-87-3, Methyl violet 8004-92-0, Quinoline Yellow WS 145017-91-0, Brilliant Blue B
 (chromatog. of)

IT 499-74-1, p-Menth-3-en-2-one 503-93-5, 2,4-Cycloheptadien-1-one, 2,6,6-trimethyl- 3792-53-8, p-Menth-8-en-2-one, cis- 29354-83-4,

Caranone 43205-82-9, p-Menth-6-en-2-one
(from p-mentha-6,8-dien-2-one)

=> d all 2-3

L3 ANSWER 2 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN
RN ***81478-26-4*** REGISTRY
ED Entered STN: 16 Nov 1984
CN Copper, (1-imino-1H-isoindol-3-aminato-.kappa.N2)methoxy[29H,31H-phthalocyaninato(2-)-.kappa.N29,.kappa.N30,.kappa.N31,.kappa.N32]-,
(OC-6-42)-(9CI) (CA INDEX NAME)
OTHER CA INDEX NAMES:
CN 1H-Isoindol-3-amine, 1-imino-, copper complex
CN 29H,31H-Phthalocyanine, copper complex
CN Copper, (1-imino-1H-isoindol-3-aminato-N2)methoxy[29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]-, (OC-6-42)-
DR 85006-36-6
MF C41 H25 Cu N11 O
CI CCS
LC STN Files: CA, CAPLUS, CHEMLIST, USPATFULL
Other Sources: NDSL**, TSCA**
(**Enter CHEMLIST File for up-to-date regulatory information)
DT.CA Caplus document type: Patent
RL.P Roles from patents: USES (Uses)

Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
===== C4N-C6	===== NC4-C6	===== 5-6	===== C8N	===== 333.79.31	===== 1
C4N-C4N-C4N-	NC4-NC4-NC4-	5-5-5-5-6-6-	C32CuN8	13605.19.6	1
C4N-C2CuN3-	NC4-CuNCNCN-	6-6-6-6-6-6			
C2CuN3-	CuNCNCN-				
C2CuN3-	CuNCNCN-				
C2CuN3-C6-C6-	CuNCNCN-C6-				
C6-C6	C6-C6-C6				

/ Structure 1 in file .gra /

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 142:306514 CA
TI Phthalocyanine precursors in infrared sensitive compositions
IN Dessauer, Rolf
PA USA
SO U.S. Pat. Appl. Publ., 9 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM G11B007-24
ICS G03C005-00
NCL 430270150
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	US 2005053864	A1	20050310	US 2003-656503	20030905
	WO 2005026839	A2	20050324	WO 2004-US28364	20040831
	WO 2005026839	A3	20050616		
	W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,			

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
 TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
 EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
 SN, TD, TG

PRAI US 2003-656503 20030905

AB Compns. and methods for prodn. of color images using phthalocyanine
 precursor-contg. color forming compns. are described. The color forming
 compn. can include a phthalocyanine precursor, an IR absorber, and a
 binder. The color forming compn. can be optimized for development in less
 than 1 ms using IR radiation. The phthalocyanine precursor can include a
 phthalocyanine and a leaving group, or groups, each coordinated to a
 metal. The color forming compns. are ambient light stable and are useful
 in forming images on a wide variety of substrates and optical disks.

ST phthalocyanine precursor IR sensitive compn optical disk

IT Optical disks

(phthalocyanine precursors in IR sensitive compns. for)

IT 81478-26-4 145017-91-0, Brilliant Blue B

RL: TEM (Technical or engineered material use); USES (Uses)

(phthalocyanine precursors in IR sensitive compns.)

IT 69415-30-1

RL: TEM (Technical or engineered material use); USES (Uses)

(phthalocyanine precursors in IR sensitive compns. for)

L3 ANSWER 3 OF 3 REGISTRY COPYRIGHT 2006 ACS on STN

RN ***69415-30-1*** REGISTRY

ED Entered STN: 16 Nov 1984

CN 3H-Indolium, 2-[2-[2-chloro-3-[(1,3-dihydro-1,3,3-trimethyl-2H-indol-2-
 ylidene)ethylidene]-1-cyclopenten-1-yl]ethenyl]-1,3,3-trimethyl-,
 perchlorate (9CI) (CA INDEX NAME)

MF C31 H34 Cl N2 . Cl O4

LC STN Files: CA, CAPLUS, CHEMCATS, USPAT2, USPATFULL

DT.CA Caplus document type: Journal; Patent

RL.P Roles from patents: RACT (Reactant or reagent); USES (Uses)

RL.NP Roles from non-patents: PREP (Preparation)

Ring System Data

Elemental Analysis EA	Elemental Sequence ES	Size of the Rings SZ	Ring System Formula RF	Ring Identifier RID	RID Occurrence Count
C5	C5	5	C5	16.127.2	1 in CM 1
C4N-C6	NC4-C6	5-6	C8N	333.151.54	1 in CM 1
C4N-C6	NC4-C6	5-6	C8N	333.151.55	1 in CM 1

CM 1

CRN 69415-29-8

CMF C31 H34 Cl N2

/ Structure 2 in file .gra /

CM 2

CRN 14797-73-0

CMF Cl O4

/ Structure 3 in file .gra /

30 REFERENCES IN FILE CA (1907 TO DATE)

30 REFERENCES IN FILE CAPLUS (1907 TO DATE)

REFERENCE 1

AN 142:306516 CA
 TI 'Leuco' dye-containing coating compositions
 IN Willard, Randall Orson; Dessauer, Rolf
 PA USA
 SO U.S. Pat. Appl. Publ., 12 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM G03C001-494
 NCL 430332000
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005053870	A1	20050310	US 2003-655708	20030905
	WO 2005026274	A1	20050324	WO 2004-US28355	20040831
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
PRAI	US 2003-655708		20030905		
AB	Compns. and systems for labeling substrates, such as optical disks, using leuco dye-contg. coating compns. are described. The compn. can comprise a color forming compn., an electromagnetic radiation absorber, and a stabilizing agent. The color forming compn. can include a leuco dye, a hexaarylbiimidazole activator, and an acid-generating source. The absorber can be admixed with or in thermal contact with the color forming compn. The stabilizing agent can be configured for protecting the leuco dye upon exposure to ambient light, wherein the stabilizing agent comprises a diarylguanidine dye salt. The coating compn. can be optimized for development using electromagnetic radiation having a frequency from about 760 nm and 800 nm.				
ST	leuco dye coating compn optical disk				
IT	Optical disks				
	(leuco dye-contg. coating compns. for)				
IT	Coating materials				
	Leuco dyes				
	Stabilizing agents				
	(leuco dye-contg. coating compns. for optical disk)				
IT	630-25-1, 1,2-Dibromotetrachloroethane 17025-47-7, Tribromomethyl phenyl sulfone 98142-42-8 242802-70-6				
	RL: TEM (Technical or engineered material use); USES (Uses) (acid generating source; leuco dye-contg. coating compns. for optical disk)				
IT	1707-68-2, 2,2'-Bis(2-chlorophenyl)4,4',5,5'-tetraphenyl-1,1'-bi-1H- imidazole 1842-62-2 29777-36-4, 2-(o-Chlorophenyl)4,5-bis(m- methoxyphenyl)imidazole dimer 29864-15-1 54390-18-0 107665-69-0 219631-64-8 847797-51-7 847797-52-8				
	RL: TEM (Technical or engineered material use); USES (Uses) (activator; leuco dye-contg. coating compns. for optical disk)				
IT	131-55-5, 2,2',4,4'-Tetrahydroxybenzophenone				
	RL: TEM (Technical or engineered material use); USES (Uses) (leuco dye-contg. coating compns. for optical disk)				
IT	69415-30-1				
	RL: TEM (Technical or engineered material use); USES (Uses) (radiation absorber; leuco dye-contg. coating compns. for optical disk)				

REFERENCE 2

AN 142:306514 CA
 TI Phthalocyanine precursors in infrared sensitive compositions
 IN Dessauer, Rolf

PA USA
 SO U.S. Pat. Appl. Publ., 9 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 IC ICM G11B007-24
 ICS G03C005-00
 NCL 430270150
 CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005053864	A1	20050310	US 2003-656503	20030905
	WO 2005026839	A2	20050324	WO 2004-US28364	20040831
	WO 2005026839	A3	20050616		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
	CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
	LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,				
	TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
	AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				
	EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,				
	SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,				
	SN, TD, TG				

PRAI US 2003-656503 20030905

AB Compns. and methods for prodn. of color images using phthalocyanine precursor-contg. color forming compns. are described. The color forming compn. can include a phthalocyanine precursor, an IR absorber, and a binder. The color forming compn. can be optimized for development in less than 1 ms using IR radiation. The phthalocyanine precursor can include a phthalocyanine and a leaving group, or groups, each coordinated to a metal. The color forming compns. are ambient light stable and are useful in forming images on a wide variety of substrates and optical disks.

ST phthalocyanine precursor IR sensitive compn optical disk

IT Optical disks

(phthalocyanine precursors in IR sensitive compns. for)

IT 81478-26-4 145017-91-0, Brilliant Blue B

RL: TEM (Technical or engineered material use); USES (Uses)

(phthalocyanine precursors in IR sensitive compns.)

IT 69415-30-1

RL: TEM (Technical or engineered material use); USES (Uses)

(phthalocyanine precursors in IR sensitive compns. for)

REFERENCE 3

AN 142:93673 CA

TI Preparation of polymethine ether as intermediates for polymethine compounds

IN Sasaki, Nobuaki; Chichiishi, Keiki; Wada, Sayuri; Fujita, Shigeo

PA Yamamoto Chemicals, Inc., Japan

SO PCT Int. Appl., 42 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C07D209-34

ICS C07D209-14; C07D519-00; C09B023-00

CC 27-10 (Heterocyclic Compounds (One Hetero Atom))

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005000814	A1	20050106	WO 2004-JP8794	20040616
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,				
	CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,				
	GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,				
	LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				
	NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,				
	TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,				
	AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,				

EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

EP 1637520 A1 20060322 EP 2004-746263 20040616

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK

PRAI JP 2003-181590 20030625

WO 2004-JP8794 20040616

GI

/ Structure 4 in file .gra /

AB There are disclosed novel compds. useful as intermediates in producing high-purity polymethine compds. having desired counter ions in high yield, i.e., polymethine ethers represented by the general formula (I) [R = alkyl, alkoxyalkyl, (un)substituted aryl; R1, R2 = H, halo, NO2, alkyl, alkoxyalkyl, alkoxy, alkoxyalkoxy; or R1 and R2 may be united to form a ring; L = alkylene necessary for the formation of a ring structure; X = H, halo, alkoxy, aryloxy, alkylthio, arylthio, (un)substituted NH2] and a process for the prodn. of polymethine compds. (II) (R1-R3 = same as above; Z- = acidic residue), characterized by bringing the polymethine ethers I into contact with an acid. Thus, 4.86 g II (R1 = 5-OMe, R2 = 7-Me, R3 = 2-methoxyethyl, L = (CH2)3, X = Cl, Z- = BF4-), and 2.21 g EtONa were added to 150 mL MeOH and stirred at 20-25.degree. for 3 h to give 2.90 g I [R = Me, R1 = 5-OMe, R2 = 7-Me, R3 = 2-methoxyethyl, L = (CH2)3, X = Cl] which (5.00 g) was added to 50 mL MeOH, treated dropwise with a MeOH soln. of 3.00 g pentafluoropropionic acid (15 mL) at 25-30.degree., and stirred at the same temp. for 2 h to give, evapn. of the solvent and treatment of the residue with EtOAc, 4.98 g II [R1 = 5-OMe, R2 = 7-Me, R3 = 2-methoxyethyl, L = (CH2)3, X = Cl, Z- = C2F5CO2-] in 85.2% yield.

ST polymethine ether prepn

IT Cyanine dyes

(prepn. of polymethine ether as intermediates for polymethine compds. having desired counter ions)

IT 124-41-4, Sodium methoxide 141-52-6, Sodium ethoxide 422-64-0,
Pentafluoropropionic acid 69415-30-1 102185-03-5 134127-48-3
207399-08-4 273198-28-0 285568-69-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of polymethine ether as intermediates for polymethine compds. having desired counter ions)

IT 819805-25-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of polymethine ether as intermediates for polymethine compds. having desired counter ions)

IT 816422-57-8P 819805-22-6P 819805-23-7P 819805-24-8P 819805-26-0P
819805-27-1P 819805-28-2P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of polymethine ether as intermediates for polymethine compds. having desired counter ions)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD

- (1) Nippon Kayaku Co Ltd; JP 200252855 A 2002
- (2) Yamamoto Chemicals Inc; EP 1006116 A1 2000 CAPLUS
- (3) Yamamoto Chemicals Inc; JP 2000226528 A 2000 CAPLUS
- (4) Yamamoto Chemicals Inc; EP 1063231 A1 2001 CAPLUS
- (5) Yamamoto Chemicals Inc; JP 200164255 A 2001

REFERENCE 4

AN 141:164864 CA

TI Positive-working presensitized lithographic plates for direct heat-mode IR laser platemaking

IN Nakamura, Ippei

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-004

ICS G03F007-00; G03F007-095; G03F007-11

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN,CNT 1,

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004219650	A2	20040805	JP 2003-6093	20030114
	US 2004157152	A1	20040812	US 2004-754511	20040112

PRAI JP 2003-6093 20030114

AB The lithog. plate comprises, successively from the bottom, a support, first layer mainly contg. alkali-sol. polymers, and second layer mainly contg. alkali-sol. polymers different from those in the first layer, wherein mixts. of .gtoreq.2 kinds of IR-absorbing agents are included in either or both the first and second layer. Preferably, one IR-absorbing agents and another IR-absorbing agents show max. absorption at .gtoreq.825 nm, and <825 nm, resp. The plate shows high sensitivity independent of exposure wavelength, and wide development latitude.

ST presensitized lithog plate IR absorber multiple; direct laser platemaking lithog plate IR absorber multiple; heat mode laser platemaking lithog plate IR absorber

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)
(novolak, cresol-based, alkali-sol.; in pos.-working presensitized lithog. plates contg. photoimaging layers contg. polymethyne dyes for direct heat-mode IR laser platemaking)

IT Photoimaging materials

(pos.-working presensitized lithog. plates contg. photoimaging layers contg. polymethyne dyes for direct heat-mode IR laser platemaking)

IT Lithographic plates

(presensitized; pos.-working presensitized lithog. plates contg. photoimaging layers contg. polymethyne dyes for direct heat-mode IR laser platemaking)

IT 56289-67-9 69415-30-1 106897-67-0 134127-48-3 162411-29-2
162717-39-7 201024-57-9 205744-92-9 212964-63-1 244606-76-6
303965-99-3 335384-21-9 442548-17-6 728043-82-1 728043-83-2
728043-84-3 728043-86-5 728043-87-6

RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
(IR-absorbing dyes; in pos.-working presensitized lithog. plates contg. photoimaging layers contg. polymethyne dyes for direct heat-mode IR laser platemaking)

IT 27029-76-1, PR 54046 141634-00-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer 146115-88-0, Ethyl methacrylate-2-methacryloyloxyethyl succinate copolymer 223561-61-3, Acrylonitrile-N-(p-aminosulfonylphenyl)acrylamide-methyl methacrylate copolymer

RL: TEM (Technical or engineered material use); USES (Uses)
(alkali-sol.; in pos.-working presensitized lithog. plates contg. photoimaging layers contg. polymethyne dyes for direct heat-mode IR laser platemaking)

IT 2621-99-0, N-(p-Aminosulfonylphenyl)acrylamide 56992-87-1, N-(p-Aminosulfonylphenyl)methacrylamide

RL: TEM (Technical or engineered material use); USES (Uses)
(in pos.-working presensitized lithog. plates contg. photoimaging layers contg. polymethyne dyes for direct heat-mode IR laser platemaking)

REFERENCE 5

AN 140:347591 CA
TI Photosensitive resin composition and presensitized lithographic plate
IN Sorori, Tadahiro; Iwato, Kaoru; Endo, Akihiro; Oshima, Yasuhito
PA Fuji Photo Film Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 52 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM G03F007-004
ICS G03F007-00

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004125985	A2	20040422	JP 2002-287144	20020930
PRAI	JP 2002-287144		20020930		
AB	The compn. contains (A) an alkali-sol. resin, (B) a light-to-heat converting agent, and (C) R3YCOCR1HCOR2 (R1-2 = H, monovalent substituent; R3 = polymer residue; Y = linkage). The material is suited for direct platemaking using high power laser beam, and gives images with high contrast and development latitude.				
ST	photosensitive resin compn presensitized lithog plate; acrylic polymer ketone group photosensitive resin compn				
IT	Phenolic resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (novolak; photosensitive resin compn. contg. polymer with ketone groups for presensitized lithog. plate)				
IT	Photoimaging materials (photosensitive resin compn. contg. polymer with ketone groups for presensitized lithog. plate)				
IT	Lithographic plates (presensitized; photosensitive resin compn. contg. polymer with ketone groups for presensitized lithog. plate)				
IT	27029-76-1, PR 54046 RL: TEM (Technical or engineered material use); USES (Uses) (PR 54046; photosensitive resin compn. contg. polymer with ketone groups for presensitized lithog. plate)				
IT	69415-30-1 134127-48-3 205744-92-9 RL: TEM (Technical or engineered material use); USES (Uses) (light-to-heat converting agent; photosensitive resin compn. contg. polymer with ketone groups for presensitized lithog. plate)				
IT	27901-88-8 65188-70-7 146245-53-6 681007-75-0 681007-76-1 681007-77-2 681007-79-4 681007-81-8 681007-83-0 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (photosensitive resin compn. contg. polymer with ketone groups for presensitized lithog. plate)				
IT	26284-14-0, Butyl methacrylate-methacrylic acid copolymer 37916-03-3, Isobutyl methacrylate-methacrylic acid copolymer 141634-00-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer RL: TEM (Technical or engineered material use); USES (Uses) (photosensitive resin compn. contg. polymer with ketone groups for presensitized lithog. plate)				

REFERENCE 6

AN 140:112225 CA
TI Resin compositions containing alkali-soluble resins useful for recording layer of positive or negative-type planographic printing plate precursor
IN Nakamura, Ippei; Endo, Akihiro
PA Fuji Photo Film Co., Ltd., Japan
SO U.S. Pat. Appl. Publ., 33 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM C08F002-46
NCL 522002000
CC 37-6 (Plastics Manufacture and Processing)
Section cross-reference(s): 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004014831	A1	20040122	US 2003-618068	20030714
	JP 2004045870	A2	20040212	JP 2002-204418	20020712
PRAI	JP 2002-204418		20020712		
AB	The present invention relates to a resin compn. that alters its soly. in an alk. aq. soln. by exposure to IR, and particularly, to a resin compn. useful for an image recording layer of pos. or neg.-type planog. printing plate precursor capable of direct platemaking by scanning with an IR laser beam based on a digital signal outputted from a computer or the like. The compns. comprise: an alkali-sol. resin (A); an IR absorbing agent (B); and a thiol compd. (C), wherein a soly. thereof in an alk. aq. soln. is changed by exposure with a IR laser ray. Thus, a such compn. contained				

cresol novolak 0.94, Bu methacrylate-methacrylic acid copolymer 0.06, a cyanide dye as IR absorbing agent 0.03, another cyanide dye 0.01, 2,4,6-tris(hexyloxy)benzenediazonium 2-hydroxy-4-methoxybenzophenone-5-sulfonate 0.01, p-toluenesulfonic acid 0.002, a dye 0.015, a surfactant 0.02, MEK 17, 1-methoxy-2-propanol 5 and 12-mercaptododecane 0.04 parts.

ST alkali sol cresol novolak pos neg working recording material; planog printing plate making recording material alkali sol resin; thiol compd IR absorbing dye resin compn plate making; IR laser recording material planog printing plate making; digital planog printing plate making alkali sol resin

IT Dyes
(IR-absorbing; resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

IT Phenolic resins, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(novolak; resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

IT IR lasers
Light-sensitive materials
Printing plates
Recording materials
(resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

IT Thiols, uses
RL: MOA (Modifier or additive use); USES (Uses)
(resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

IT 69415-30-1 134127-48-3 205744-92-9
RL: TEM (Technical or engineered material use); USES (Uses)
(IR-absorbing dye; resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

IT 86-93-1 91-60-1, 2-Naphthalenethiol 112-55-0, 1-Mercaptododecane 624-39-5, Benzene-1,4-dithiol 6262-87-9 6264-40-0 7634-42-6 19362-77-7, Bis(4-mercaptophenyl) sulfide 29490-19-5, 5-Mercapto-2-methyl-1,3,4-thiadiazole 37052-78-1 83698-90-2, Octadecane-1,18-dithiol 118090-09-8, 2-Benzothiazolethiol 131242-36-9, 2-Pyrimidinethiol 132120-63-9, 1,3,4-Thiadiazole-2,5-dithiol 134469-07-1, 1H-Benzimidazole-2-thiol
RL: MOA (Modifier or additive use); USES (Uses)
(resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

IT 26284-14-0, Butyl methacrylate-methacrylic acid copolymer 27029-76-1, PR 54046 37282-06-7, Cresol-phenol copolymer 141634-00-6, Acrylonitrile-N-(p-aminosulfonylphenyl)methacrylamide-methyl methacrylate copolymer
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)
(resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(substrate; resin compns. contg. alkali-sol. resins useful for recording layer of pos. or neg.-type planog. printing plate precursor)

REFERENCE 7

AN 140:10667 CA

TI Photosensitive compositions useful for image recording layer of a positive-type planographic printing plate precursor

IN Nakamura, Ippei; Kawauchi, Ikuo; Serikawa, Takeshi; Tsuchiya, Mitsumasa

PA Fuji Photo Film Co., Ltd, Japan

SO Eur. Pat. Appl., 41 pp.
CODEN: EPXXDW

DT Patent

LA English

IC ICM B41M005-36
ICS G03F007-021; G03F007-023

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI EP 1366926 A1 20031203 EP 2003-12104 20030528
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
JP 2003345014 A2 20031203 JP 2002-154279 20020528
US 2004018444 A1 20040129 US 2003-446145 20030528
PRAI JP 2002-154279 20020528
AB The present invention relates to a photosensitive compns. showing an
increased soly. in an alk. aq. soln. by an exposure to an IR light. The
compns. are useful for printing plate precursor which can be directly
converted to a printing plate by scanning with an IR laser in accordance
with a digital signal outputted from a computer or the like. The compns.
include: (A) a vinyl polymer contg. a copolymn. component having a
carboxyl group, having a content of the carboxyl group in a mol. of 2.0
mequiv/g or higher and having a soly. parameter less than 21.3 MPa^{1/2}, (B)
a polymer compd. including a phenolic hydroxyl group (novolac), and (C) an
IR absorber.
ST pos working photoresist planog printing plate making precursor; IR laser
scanning lithog printing plate making pos photoresist; novolac carboxyl
vinyl polymer pos working photoresist plate making
IT Optical materials
(IR absorbers, dye; alkali-sol. pos.-working photoresists useful for
image recording layer of a pos.-type planog. printing plate precursor)
IT Dyes
(IR-absorbing; alkali-sol. pos.-working photoresists useful for image
recording layer of a pos.-type planog. printing plate precursor)
IT IR materials
(absorbers, dye; alkali-sol. pos.-working photoresists useful for image
recording layer of a pos.-type planog. printing plate precursor)
IT Lithographic plates
Photoresists
(alkali-sol. pos.-working photoresists useful for image recording layer
of a pos.-type planog. printing plate precursor)
IT 69415-30-1 134127-48-3 205744-92-9
RL: MOA (Modifier or additive use); USES (Uses)
(IR-absorbing dye; alkali-sol. pos.-working photoresists useful for
image recording layer of a pos.-type planog. printing plate precursor)
IT 25119-83-9, Acrylic acid-butyl acrylate copolymer 26284-14-0, Butyl
methacrylate-methacrylic acid copolymer 27029-76-1, PR 54046 27029-76-
1, m-Cresol-p-cresol-formaldehyde copolymer 28572-98-7, Ethyl
methacrylate-methacrylic acid copolymer 39841-04-8, Ethyl
methacrylate-isobutyl methacrylate copolymer 60799-45-3, Butyl
methacrylate-ethyl methacrylate-methacrylic acid copolymer 61891-43-8,
Isopropyl methacrylate-methacrylic acid copolymer 80570-62-3, Acrylic
acid-ethyl methacrylate-isobutyl methacrylate copolymer 175221-27-9,
Ethyl methacrylate-isobutyl methacrylate-methacrylic acid copolymer
223483-40-7, Butyl acrylate-isopropyl acrylate-methacrylic acid copolymer
633696-55-6
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(photoresist; alkali-sol. pos.-working photoresists useful for image
recording layer of a pos.-type planog. printing plate precursor)
IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(plate substrate; alkali-sol. pos.-working photoresists useful for
image recording layer of a pos.-type planog. printing plate precursor)
RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
(1) Fuji Photo Film Co Ltd; EP 1316421 A 2003 CAPLUS
(2) Gaschler, O; US 6238838 B1 2001 CAPLUS
(3) Kitatani, K; US 5840467 A 1998 CAPLUS
(4) Mitsubishi Chem Corp; JP 2001324808 A 2001 CAPLUS

REFERENCE 8

AN 139:205006 CA
TI Thermally developable imaging materials with improved image uniformity
IN Hunt, Bryan V.; Kong, Steven H.; Ramsden, William D.; Labelle, Gary E.
PA Eastman Kodak Company, USA
SO U.S. Pat. Appl. Publ., 43 pp.
CODEN: USXXCO
DT Patent
LA English
IC ICM G03C001-34

ICS G03C001-498; G03C001-83; G03C001-825
NCL 430350000
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2003162134	A1	20030828	US 2001-11892	20011205
	US 6689547	B2	20040210		
PRAI	US 2001-11892		20011205		

AB A photothermog. material comprises a support having thereon one or more thermally-developable imaging layers comprising a binder and in reactive assocn., a photosensitive silver halide, a non-photosensitive source of reducible silver ions, and a reducing compn. for the non-photosensitive source reducible silver ions. The thermally-developable layers further comprises one or more radiation absorbing compds. that provide a total absorbance of > 0.6 and up to and including 3 in the thermally-developable imaging layer(s). These photothermog. materials exhibit reduced mottle without significant loss in sensitivity.

ST photothermog thermally developable imaging material

IT Photographic emulsions

(heat-developable; thermally developable imaging materials with improved image uniformity)

IT Photothermographic copying

(thermally developable imaging materials with improved image uniformity)

IT 12240-33-4, Cyclobutenediylum

RL: TEM (Technical or engineered material use); USES (Uses)

(antihalation dye; thermally developable imaging materials with improved image uniformity contg.)

IT	23178-67-8	53655-17-7	55281-19-1	56289-67-9	69415-30-1
	92177-65-6	96122-07-5	110992-55-7	114767-01-0	126746-84-7
	207399-10-8	212964-63-1	494762-24-2	494762-27-5	494762-28-6
	551960-74-8	583839-58-1	583839-60-5	583839-62-7	583839-63-8
	583839-64-9	583839-66-1	583839-68-3	583839-69-4	583839-71-8
	583839-73-0	583839-75-2	583839-77-4	583839-79-6	583839-80-9
	583839-81-0	583839-82-1	583839-84-3	583839-85-4	583839-86-5
	583839-87-6	583839-88-7	583839-90-1	583839-91-2	583839-93-4
	583839-95-6	583839-97-8	583839-99-0	583840-01-1	583840-02-2

RL: TEM (Technical or engineered material use); USES (Uses)

(radiation absorbing compd.; thermally developable imaging materials with improved image uniformity contg.)

REFERENCE 9

AN 139:125159 CA

TI Presensitized lithographic plates having good blocking resistance on storage in coiled state

IN Nishiyama, Yasushi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-09

ICS B41N001-14; G03F007-00; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003207899	A2	20030725	JP 2002-9122	20020117
PRAI	JP 2002-9122		20020117		

AB The plates, for computer-to-plate direct platemaking, have, on hydrophilic supports, photothermal conversion layers having difference of water contact angle .gtoreq.7.degree. to that of backing layers.

ST presensitized lithog plate storage stability CTP; contact angle difference presensitized lithog plate

IT Phenolic resins, uses

RL: TEM (Technical or engineered material use); USES (Uses)

(cresol-based, photothermal conversion layers; presensitized lithog.

plates having large difference of photothermal conversion layers and backing layers in contact angle)

IT Contact angle
(presensitized lithog. plates having large difference of photothermal conversion layers and backing layers in contact angle)

IT Lithographic plates
(presensitized; presensitized lithog. plates having large difference of photothermal conversion layers and backing layers in contact angle)

IT 11099-06-2, Ethyl silicate
RL: TEM (Technical or engineered material use); USES (Uses)
(backing layers; presensitized lithog. plates having large difference of photothermal conversion layers and backing layers in contact angle)

IT 69415-30-1
RL: CAT (Catalyst use); TEM (Technical or engineered material use); USES (Uses)
(photothermal conversion layers; presensitized lithog. plates having large difference of photothermal conversion layers and backing layers in contact angle)

IT 27029-76-1, m-Cresol-p-cresol-formaldehyde copolymer 124996-93-6
RL: TEM (Technical or engineered material use); USES (Uses)
(photothermal conversion layers; presensitized lithog. plates having large difference of photothermal conversion layers and backing layers in contact angle)

IT 7429-90-5, Aluminum, uses
RL: TEM (Technical or engineered material use); USES (Uses)
(supports; presensitized lithog. plates having large difference of photothermal conversion layers and backing layers in contact angle)

REFERENCE 10

AN 138:393095 CA

TI Lithographic printing master plate having phenolic resin surface layer for improved sensitivity and manufacture thereof

IN Nishiyama, Yasushi

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM G03F007-00
ICS B41N001-14; G03F007-004

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 38, 42

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003140328	A2	20030514	JP 2001-339649	20011105
PRAI	JP 2001-339649		20011105		
AB	The lithog. printing master plate comprises an image-forming layer on a hydrophilic support which contains a phenolic resin phase-sepd. from a vinyl resin and is coated at an application of 0.5-5 g/m ² , wherein the phase-sepd. phenolic resin as a surface layer covers an entirety of the image-forming layer and a content of the phenolic resin is 60-120 mg/m ² . The image-forming layer contains a light-to-heat converting agent. The process involving coating steps and drying steps is also claimed.				
ST	lithog printing master plate phenolic resin surface layer; coating drying lithog printing master plate				
IT	Coating process Drying Lithographic plates (lithog. printing master plate having phenolic resin surface layer for improved sensitivity)				
IT	Phenolic resins, uses RL: TEM (Technical or engineered material use); USES (Uses) (lithog. printing master plate having phenolic resin surface layer for improved sensitivity)				
IT	69415-30-1 RL: TEM (Technical or engineered material use); USES (Uses) (light-to-heat converting agent; lithog. printing master plate having phenolic resin surface layer for improved sensitivity)				
IT	9003-42-3, Ethyl methacrylate homopolymer 25014-41-9, Acrylonitrile				

homopolymer 27029-76-1 56992-88-2
RL: EPR (Engineering process); PEP (Physical, engineering or chemical
process); TEM (Technical or engineered material use); PROC (Process); USES
(Uses)
(lithog. printing master plate having phenolic resin surface layer for
improved sensitivity)

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(FILE 'HOME' ENTERED AT 09:06:13 ON 04 MAY 2006)

L1 FILE 'CAPLUS' ENTERED AT 09:06:24 ON 04 MAY 2006
1 S US 2005-0053864/PN

FILE 'REGISTRY' ENTERED AT 09:06:54 ON 04 MAY 2006

L2 FILE 'CAPLUS' ENTERED AT 09:07:01 ON 04 MAY 2006
TRA L1 1- RN : 3 TERMS

L3 FILE 'REGISTRY' ENTERED AT 09:07:01 ON 04 MAY 2006
3 SEA L2

=> s l3 and phthalocyan?

L4 27026 PHTHALOCYAN?
1 L3 AND PHTHALOCYAN?

=> s l3 and (phthalocyan? or blue)

L5 27026 PHTHALOCYAN?
5433 BLUE
2 BLUES
5435 BLUE
(BLUE OR BLUES)
2 L3 AND (PHTHALOCYAN? OR BLUE)

=> file caplus

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FILE LAST UPDATED: 3 May 2006 (20060503/ED)

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=> s l5

L6 8 L5

=> s (leucophthalocyanine or ((leuco or pale or colorless or precursor) (5a)phthalocyanine))

14 LEUCOPHTHALOCYANINE
 4 LEUCOPHTHALOCYANINES
 14 LEUCOPHTHALOCYANINE
 (LEUCOPHTHALOCYANINE OR LEUCOPHTHALOCYANINES)
 11375 LEUCO
 7 LEUCOS
 11380 LEUCO
 (LEUCO OR LEUCOS)
 28616 PALE
 78 PALES
 28685 PALE
 (PALE OR PALES)
 58743 COLORLESS
 239077 PRECURSOR
 115040 PRECURSORS
 317086 PRECURSOR
 (PRECURSOR OR PRECURSORS)
 34601 PHTHALOCYANINE
 6687 PHTHALOCYANINES
 35319 PHTHALOCYANINE
 (PHTHALOCYANINE OR PHTHALOCYANINES)
 216 (LEUCO OR PALE OR COLORLESS OR PRECURSOR) (5A) PHTHALOCYANINE
 L7 227 (LEUCOPHTHALOCYANINE OR ((LEUCO OR PALE OR COLORLESS OR PRECURSOR) (5A) PHTHALOCYANINE))

=> s 16 or 17

L8 234 L6 OR L7

=> s (thermographic or thermo or heat or ir or infrared) and l8

4877 THERMOGRAPHIC
 4 THERMOGRAPHICS
 4881 THERMOGRAPHIC
 (THERMOGRAPHIC OR THERMOGRAPHICS)
 4849 THERMOG
 3 THERMOGS
 4849 THERMOG
 (THERMOG OR THERMOGS)
 8205 THERMOGRAPHIC
 (THERMOGRAPHIC OR THERMOG)
 36271 THERMO
 315 THERMOS
 36585 THERMO
 (THERMO OR THERMOS)
 1271967 HEAT
 55118 HEATS
 1286636 HEAT
 (HEAT OR HEATS)
 602064 IR
 5384 IRS
 605989 IR
 (IR OR IRS)
 236922 INFRARED
 5 INFRAREDS
 236925 INFRARED
 (INFRARED OR INFRAREDS)
 602064 IR
 5384 IRS
 605989 IR
 (IR OR IRS)
 678472 INFRARED
 (INFRARED OR IR)

L9 31 (THERMOGRAPHIC OR THERMO OR HEAT OR IR OR INFRARED) AND L8

=> d all 1-31

L9 ANSWER 1 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2006:254490 CAPLUS
 ED Entered STN: 20 Mar 2006
 TI Synthesis of potassium 4-sulfophthalonitrile
 AU Xu, Xiu-zhi; Lin, Mei-jin; Lin, Guo-fa; Wang, Jun-dong; Chen, Nai-sheng;
 Huang, Jin-ling
 CS Institute of Functional Materials, State Key Laboratory of Structural

Chemistry, College of Chemical Engineering, Fuzhou University, Fuzhou,
350002, Peop. Rep. China

SO Hecheng Huaxue (2006), 14(1), 64-65, 71
CODEN: HEHUE2; ISSN: 1005-1511

PB Hecheng Huaxue Bianjibu

DT Journal

LA Chinese

CC 25 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

AB Potassium 4-sulfophthalonitrile, a hydrophilic ***precursor*** of
phthalocyanine, was synthesized from 4-nitrophthalonitrile via
redn., diazotization, sulfonyl chlorination, hydrolysis and neutralization
with an overall yield of 22%. The structure was characterized by ¹H NMR,
IR, MS and elemental anal.

L9 ANSWER 2 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:1229702 CAPLUS

DN 144:141232

ED Entered STN: 21 Nov 2005

TI Synthesis, characterization, and electrical, electrochemical and gas
sensing properties of a novel cyclic borazine derivative containing three
phthalocyaninato zinc(II) macrocycles

AU Oezer, Metin; Altindal, Ahmet; Oezkaya, Ali Riza; Bulut, Mustafa;
Bekaroglu, Oezer

CS Department of Chemistry, Marmara University, Faculty of Art and Science,
Goeztepe, Istanbul, Turk.

SO Synthetic Metals (2005), 155(1), 222-231
CODEN: SYMEDZ; ISSN: 0379-6779

PB Elsevier B.V.

DT Journal

LA English

CC 78-7 (Inorganic Chemicals and Reactions)

Section cross-reference(s): 28, 67, 72, 80

AB A novel borazine deriv. of trinuclear phthalocyanine was prepd. by
following the multistep reactions of unsym. substituted phthalocyanines.
4-(4-Amino-3-nitrophenoxy)phthalonitrile (3) which is one of the
precursor mols. of the ***phthalocyanine*** was obtained from
4-nitrophthalonitrile (1) and 4-amino-3-nitrophenol (2) with K₂CO₃ in DMF
at 50.degree.. The Zn(II) phthalocyanine (5) contg. an unsym. substituted
4-amino-3-nitrophenoxy group was synthesized by statistical condensation
of two different phthalonitriles. 4-(4-Amino-3-
nitrophenoxy)phthalonitrile (3) and 4,5-bis(hexylthio)phthalonitrile (4)
were cyclotetramerized with Zn(OAc)₂ in DMF at 170-180.degree. to yield
ZnL (H₂L = 2-(4-amino-3-nitrophenoxy)-9,10,16,17,23,24-
hexa(hexylthio)phthalocyanine) (5), which was then sepd. by column
chromatog. on silica gel. The unsym. substituted compd. was reduced to
the diamine form (6) using hydrazine hydrate in the presence of Pd/C
catalyst, and the product was purified with chromatog. sepn. Compd. 6 was
then reacted with triisopropoxyborane in refluxing xylene to give the Zn
complex of 5H,12H,19H-tris[2-(3,4-diaminophenoxy)-9,10,16,17,23,24-
hexa(hexylthio)phthalocyaninyldiazaborolo]borazine (7). The resulting
product was purified by column chromatog. on silica gel. All the target
unsym. phthalocyanines and borazine deriv. were characterized by elemental
anal., ***IR***, UV-visible, and ¹H NMR. Impedance spectroscopy and
d.c. measurements were performed on spin coated 5-7 films as a function of
temp. (293-400 K). The d.c. results showed an activated cond. dependence
on temp. The a.c. results gave a temp. dependent frequency exponent s.
The results were compared with the prediction of the Quantum Mech.
Tunneling and Correlated Barrier Hopping models. The a.c. cond. of the
films was well A.omega. s. Gas sensing properties of the films for the
volatile org. compds. (VOCs) (CHCl₃, acetone, CCl₄ and NH₃) were also
studied at 293-400 K The operating temp. had a considerable effect on
sensing characteristics. Maximum sensitivity to VOCs were obsd. at room
temp. for all films. Cyclic voltammetry of compds. 6 and 7 in soln.
indicated that these compds. have similar voltammetric behavior.

ST zinc phthalocyanine borazine deriv prepn elec property gas sensor;
electrochem redn zinc phthalocyanine borazine deriv complex

IT Electric capacitance
Electric conductivity
Electric impedance
Reduction, electrochemical
Reduction potential
(of zinc phthalocyanines and borazine deriv. phthalocyanine complexes)

IT Gas sensors
(zinc phthalocyanines and borazine deriv. phthalocyanine complexes for volatile org. compds.)

IT 56-23-5, Carbon tetrachloride, analysis 67-64-1, Acetone, analysis 67-66-3, Chloroform, analysis 7664-41-7, Ammonia, analysis
RL: ANT (Analyte); ANST (Analytical study)
(gas sensing by zinc phthalocyanine borazine deriv. complex and phthalocyanine complexes)

IT 873092-97-8P
RL: ARU (Analytical role, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); PROC (Process); RACT (Reactant or reagent)
(prepn. and elec. properties and gas sensing properties for volatile org. compds. and cyclic voltammetry and reactant for prepn. of zinc phthalocyanine borazine deriv. complex)

IT 873225-71-9P.
RL: ARU (Analytical role, unclassified); CPS (Chemical process); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); PROC (Process)
(prepn. and elec. properties and gas sensing properties for volatile org. compds. and cyclic voltammetry of)

IT 873092-96-7P
RL: ARU (Analytical role, unclassified); PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and elec. properties and gas sensing properties for volatile org. compds. and reactant for prepn. of zinc phthalocyanine borazine deriv. complex)

IT 873092-95-6P, 4-(4-Amino-3-nitrophenoxy)phthalonitrile
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reactant for prepn. of zinc phthalocyanine and borazine deriv. phthalocyanine complexes)

IT 610-81-1, 4-Amino-3-nitrophenol 31643-49-9, 4-Nitrophthalonitrile 156903-56-9, 4,5-Bis(hexylthio)phthalonitrile
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for prepn. of zinc phthalocyanine and borazine deriv. phthalocyanine complexes)

IT 1776-66-5, Triisopropylborane
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant for prepn. of zinc phthalocyanine borazine deriv. complex)

RE.CNT 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L9 ANSWER 3 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:728077 CAPLUS
 DN 144:99809
 ED Entered STN: 11 Aug 2005
 TI Synthesis and spectroscopic properties of octa-substituted
 bis(phthalocyaninato) rare earth complexes peripherally substituted with
 4-methoxyphenoxy derivatives
 AU Lu, Fan-Li; Zhang, Li-Gai; Liu, Hua-Ji; Cui, Jian-Zhong; Yan, Xiu-Ru
 CS Department of Chemistry, School of Sciences, Tianjin University, Tianjin,
 300072, Peop. Rep. China
 SO Wujia Huaxue Xuebao (2005), 21(8), 1131-1136
 CODEN: WHUXEO; ISSN: 1001-4861
 PB Wujia Huaxue Xuebao Bianjibu
 DT Journal
 LA English
 CC 78-7 (Inorganic Chemicals and Reactions)
 AB 15 Rare earth double-decker complexes, $M[Pc(MeOPhO)_8]_2$ [$M = Y, La$
 .cntdot.cntdot.cntdot. Lu, except Pm; $H_2Pc = 2,3,9,10,16,17,23,24$ -
 octakis(4-methoxyphenoxy)phthalocyanine], were prepd. by treating
 $RE(acac)_3 \cdot nH_2O$ ($acac = acetylacetonate$) with 4,5-bis(4-
 methoxyphenoxy)phthalonitrile in refluxing 1-pentanol in the presence of
 1,8-diazabicyclo[5.4.0]undec-7-ene (DBU). The phthalonitrile with the
 4-methoxyphenoxy substituents, a ***precursor*** of the
 phthalocyanine, was synthesized by nucleophilic addn. of
 4,5-dichlorophthalonitrile with 4-methoxyphenol in dry DMSO soln. These
 novel sandwich-type complexes were characterized by UV-visible and
 IR spectroscopy. There are substantial .pi.-.pi. interactions and
 the hole mainly locates at the Pc ligands.
 ST rare earth methoxyphenoxy phthalocyaninate double decker complex prepn
 IT ***IR*** spectra
 (near- ***IR***; prepn. and electronic and ***IR*** spectra and
 redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato
 double-decker complexes)
 IT Rare earth complexes

RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (phthalocyanine; prepn. and electronic and ***IR*** spectra and redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato double-decker complexes)

IT ***IR*** spectra
 Pi-pi interaction
 UV and visible spectra
 (prepn. and electronic and ***IR*** spectra and redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato double-decker complexes)

IT Metallophthalocyanines
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (rare earth complexes; prepn. and electronic and ***IR*** spectra and redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato double-decker complexes)

IT 679789-00-5P 872052-33-0P 872052-35-2P 872052-37-4P 872052-39-6P
 872052-40-9P 872052-41-0P 872052-42-1P 872052-43-2P 872052-46-5P
 872052-48-7P 872052-51-2P 872052-53-4P 872052-55-6P 872052-58-9P
 RL: PRP (Properties); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and electronic and ***IR*** spectra and redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato double-decker complexes)

IT 872052-61-4P 872052-62-5P 872052-63-6P 872052-64-7P 872052-65-8P
 872052-67-0P 872052-69-2P 872052-70-5P 872052-71-6P 872052-72-7P
 872052-73-8P 872052-75-0P 872052-76-1P 872052-77-2P 872052-78-3P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and electronic and ***IR*** spectra and redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato double-decker complexes)

IT 150-76-5, 4-Methoxyphenol 14284-86-7, Tris(acetylacetonato)europium
 14284-87-8, Tris(acetylacetonato)gadolinium 14284-88-9,
 Tris(acetylacetonato)lanthanum 14284-95-8, Tris(acetylacetonato)terbium
 14284-98-1, Tris(acetylacetonato)ytterbium 14553-08-3,
 Tris(acetylacetonato)erbium 14553-09-4, Tris(acetylacetonato)praseodymium
 14589-33-4, Tris(acetylacetonato)holmium 14589-38-9,
 Tris(acetylacetonato)neodymium 14589-42-5, Tris(acetylacetonato)samarium
 14589-44-7, Tris(acetylacetonato)thulium 14637-88-8,
 Tris(acetylacetonato)dysprosium 15554-47-9, Tris(acetylacetonato)yttrium
 15653-01-7, Tris(acetylacetonato)cerium 17966-84-6,
 Tris(acetylacetonato)lutetium 139152-08-2, 4,5-Dichlorophthalonitrile
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. and electronic and ***IR*** spectra and redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato double-decker complexes)

IT 147699-64-7P, 4,5-Bis(4-methoxyphenoxy)phthalonitrile
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and electronic and ***IR*** spectra and redn. of rare earth octakis(methoxyphenoxy)phthalocyaninato double-decker complexes)

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

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L9 ANSWER 4 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2005:219972 CAPLUS
 DN 142:306514
 ED Entered STN: 13 Mar 2005
 TI ***Phthalocyanine*** ***precursors*** in ***infrared***
 sensitive compositions
 IN Dessauer, Rolf
 PA USA
 SO U.S. Pat. Appl. Publ., 9 pp.
 CODEN: USXXCO

DT Patent
LA English
IC ICM G11B007-24
ICS G03C005-00
INCL 430270150; 430270140; 430945000; 430338000; 503225000
CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2005053864	A1	20050310	US 2003-656503	20030905
	WO 2005026839	A2	20050324	WO 2004-US28364	20040831
	WO 2005026839	A3	20050616		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH,
CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD,
GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,
NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE,
SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE,
SN, TD, TG

PRAI US 2003-656503 A 20030905

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 2005053864	ICM	G11B007-24
	ICS	G03C005-00
	INCL	430270150; 430270140; 430945000; 430338000; 503225000
	IPCI	G11B0007-24 [ICM,7]; G03C0005-00 [ICS,7]
	IPCR	B41M0005-30 [I,A]; B41M0005-30 [I,C]; G03C0005-00 [I,A]; G03C0005-00 [I,C]; G03F0007-00 [I,A]; G03F0007-00 [I,C]; G11B0007-24 [I,A]; G11B0007-24 [I,C]
	NCL	430/270.150
WO 2005026839	IPCI	G03F0007-00 [ICM,7]
	IPCR	B41M0005-30 [I,A]; B41M0005-30 [I,C]; G03C0005-00 [I,A]; G03C0005-00 [I,C]; G03F0007-00 [I,A]; G03F0007-00 [I,C]; G11B0007-24 [I,A]; G11B0007-24 [I,C]

AB Compns. and methods for prodn. of color images using
phthalocyanine ***precursor*** -contg. color forming compns.
are described. The color forming compn. can include a
phthalocyanine ***precursor***, an ***IR*** absorber, and
a binder. The color forming compn. can be optimized for development in
less than 1 ms using ***IR*** radiation. The ***phthalocyanine***
precursor can include a ***phthalocyanine*** and a leaving
group, or groups, each coordinated to a metal. The color forming compns.
are ambient light stable and are useful in forming images on a wide
variety of substrates and optical disks.

ST ***phthalocyanine*** ***precursor*** ***IR*** sensitive compn
optical disk

IT Optical disks
(***phthalocyanine*** ***precursors*** in ***IR***
sensitive compns. for)

IT ***81478-26-4*** ***145017-91-0***, Brilliant Blue B
RL: TEM (Technical or engineered material use); USES (Uses)
(***phthalocyanine*** ***precursors*** in ***IR***
sensitive compns.)

IT 69415-30-1
RL: TEM (Technical or engineered material use); USES (Uses)
(***phthalocyanine*** ***precursors*** in ***IR***
sensitive compns. for)

L9 ANSWER 5 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
AN 2002:347382 CAPLUS
DN 136:377401
ED Entered STN: 09 May 2002
TI Phthalocyanine compound, manufacture of the compound, and
electrophotographic photoconductor
IN Nanasawa, Masato; Takano, Mitsuyo; Suzuki, Hiroki; Uchida, Tadayoshi;
Kiuchi, Yasuyuki

PA Shindengen Electric Mfg. Co., Ltd., Japan; Yamanashi Denshi Kogyo K. K.
SO Jpn. Kokai Tokkyo Koho, 34 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C07D487-22
ICS G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 26

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002128783	A2	20020509	JP 2001-203149	20010704
PRAI	JP 2000-245558	A	20000814		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2002128783	ICM	C07D487-22
	ICS	G03G005-06
	IPCI	C07D0487-22 [ICM,7]; G03G0005-06 [ICS,7]
	IPCR	C07D0487-00 [I,C]; C07D0487-22 [I,A]; G03G0005-06 [I,A]; G03G0005-06 [I,C]

OS MARPAT 136:377401
GI

/ Structure 5 in file .gra /

AB The phthalocyanine compd. is that represented as I [M = Si, Ti, V, Cr, Mn, Fe, Co, Ga, Ge, Zr, Nb, Mo, Ru, Sn; X = (substituted) C2-6 hydrocarbyl; substituents on X may be linked to form rings; Y1 = Y2 = S or 1 of Ys is S and the rest is O; R1-R4 = H, cyano, NO2, halogen, OH, alkyl, aryl, heterocycle, ester, alkoxy, aralkyl, allyl, amide, amino, acyl, alkenyl, alkynyl, carboxyl, carbonyl, carboxylic acid, or sulfonic acid which may be substituted], etc. The compd. is manufd. by the process involving dehydration condensation of a ***phthalocyanine*** ***precursor*** and HY1XY2H (X, Y1, Y2 are the same as above). The pos. or neg. charging electrophotog. photoconductor is that has a photosensitive layer contg. I as a charge-generating agent assocd. with a charge-transporting agent and an elec. conductive support. The photoconductor is preferably that manufd. by deposition of I vaporized under ***heat*** in vacuo for forming a thin film on the elec. conductive support.

ST phthalocyanine deriv electrophotog photoconductor; pos neg charging electrophotog photoconductor; charge generating agent phthalocyanine deriv

IT Dehydration reaction
(condensation; for manuf. of phthalocyanine deriv. as charge-generating agent in pos. and neg. charging electrophotog. photoconductor)

IT Electrophotographic photoconductors (photoreceptors)
(phthalocyanine deriv. as charge-generating agent in pos. and neg. charging electrophotog. photoconductor)

IT 540-63-6, 1,2-Ethanedithiol 26201-32-1, Titanyl phthalocyanine
RL: RCT (Reactant); RACT (Reactant or reagent)
(for prepn. of phthalocyanine deriv. as charge-generating agent in pos. and neg. charging electrophotog. photoconductor)

IT 423760-79-6P
RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(phthalocyanine deriv. as charge-generating agent in pos. and neg. charging electrophotog. photoconductor)

IT 423760-81-0 423760-83-2 423760-85-4 423760-87-6 423760-89-8
RL: TEM (Technical or engineered material use); USES (Uses)
(phthalocyanine deriv. as charge-generating agent in pos. and neg. charging electrophotog. photoconductor)

L9 ANSWER 6 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2002:104645 CAPLUS

DN 136:154984

ED Entered STN: 08 Feb 2002

TI Recyclable colorless glass bottles coated with cured polymer emulsion containing a colorant

IN Nonogaki, Tomohiko; Yamamoto, Satoshi
 PA Ishizuka Glass Co., Ltd., Japan
 SO Eur. Pat. Appl., 9 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C03C017-00
 CC 57-1 (Ceramics)
 Section cross-reference(s): 38

FAN.CNT 1					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

PI	EP 1178021	A1	20020206	EP 2001-306635	20010802
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2002046744	A2	20020212	JP 2000-236841	20000804
PRAI	JP 2000-236841	A	20000804		

CLASS		
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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EP 1178021	ICM	C03C017-00
	IPCI	C03C0017-00 [ICM,6]
	IPCR	C03C0017-00 [I,A]; C03C0017-00 [I,C]
	ECLA	C03C017/00D2
JP 2002046744	IPCI	B65D0023-02 [ICM,7]; B65D0023-02 [ICS,7]; C03C0017-32 [ICS,7]; C09D0201-00 [ICS,7]
	IPCR	C03C0017-00 [I,A]; C03C0017-00 [I,C]

AB A recyclable glass bottle coated with a colored film with 0.5-7 .mu.m thickness is obtained by coating the outer surface of a colorless glass bottle with a resin coating soln. contg. a microparticulate colorant (such as phthalocyanine blue or dimethylquinacridone) having a mean particle size of 0.01-0.2 .mu.m dispersed uniformly together with a dispersant in a synthetic resin emulsion (such as polyurethane) and then curing by heating.

ST colorant particle polymer emulsion coating recyclable glass bottle

IT Acrylic polymers, processes
 Epoxy resins, processes
 Ionomers
 Polyesters, processes
 Polyurethanes, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
 (coating compn.; recyclable colorless glass bottles coated with cured polymer emulsion contg. a colorant)

IT Dyes
 Pigments, biological
 (colorant; recyclable colorless glass bottles coated with cured polymer emulsion contg. a colorant)

IT Silanes
 RL: MOA (Modifier or additive use); USES (Uses)
 (coupling agent; recyclable colorless glass bottles coated with cured polymer emulsion contg. a colorant)

IT Polysiloxanes, processes
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
 (lubricant; recyclable colorless glass bottles coated with cured polymer emulsion contg. a colorant)

IT Coating materials
 (polymer; recyclable colorless glass bottles coated with cured polymer emulsion contg. a colorant)

IT Bottles
 Coloring materials
 Crosslinking
 Heat treatment
 Particle size
 (recyclable colorless glass bottles coated with cured polymer emulsion contg. a colorant)

IT Coupling agents
 (silane; recyclable colorless glass bottles coated with cured polymer emulsion contg. a colorant)

IT 9002-86-2, PVC 9002-88-4, Polyethylene 9003-07-0, Polypropylene
 RL: PEP (Physical, engineering or chemical process); PYP (Physical

process); PROC (Process)
(coating compn.; recyclable colorless glass bottles coated with cured
polymer emulsion contg. a colorant)
IT 147-14-8, ***Phthalocyanine*** blue
RL: MOA (Modifier or additive use); USES (Uses)
(pigment; recyclable ***colorless*** glass bottles coated with
cured polymer emulsion contg. a colorant)
IT 28632-05-5, Dimethylquinacridone
RL: MOA (Modifier or additive use); USES (Uses)
(pigments; recyclable colorless glass bottles coated with cured polymer
emulsion contg. a colorant)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE
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(5) Sumitomo Metal Mining Co; EP 0905100 A 1999 CAPLUS
(6) Sumitomo Metal Mining Co; EP 1008564 A 2000 CAPLUS

L9 ANSWER 7 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:145160 CAPLUS

ED Entered STN: 08 Mar 1999

TI Synthesis of octa-substituted hydroxyl terminated copper
phthalocyanines (PC) as ***precursors*** for PC catalysts

AU Watney, James B.; Osburn Atkinson, Elizabeth J.

CS Linfield College, McMinnville, OR, 97128, USA

SO Book of Abstracts, 217th ACS National Meeting, Anaheim, Calif., March
21-25 (1999), CHED-579 Publisher: American Chemical Society, Washington,
D. C.

CODEN: 67GHA6

DT Conference; Meeting Abstract

LA English

AB Two octa-substituted copper Pc's with hydroxyl terminated side chains were
synthesized, CuPc-[O(CH₂)₃-OH]₈ and CuPc-[O(CH₂)₆-OH]₈, with the objective
to form a Pc that could be covalently incorporated into an inert matrix
minimizing interactions between Pc mols. Pc's posses many unique
characteristics: high stability to ***heat*** and light,
self-aggregation, photocond., semicond., and catalytic properties. A
considerable amt. of attention has been devoted to optimizing these
characteristics. A direct correlation between Pc aggregation and
catalytic properties is noted. Although catalysts using unsubstituted
Pc's can be formed, polymorphism, aggregation, and defect sites often
cause a decrease in catalytic activity. The addn. of peripheral
substituents to the Pc macrocycle increases soly. and has been used to
stabilize aggregates, but can also help isolate Pc mols. by covalently
bonding them into an inert matrix.

L9 ANSWER 8 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1999:144538 CAPLUS

ED Entered STN: 08 Mar 1999

TI Attempts on the synthesis of phthalocyanine analogs: The unusual
reactivity of 2-benzylidene-4,5-dicyano-1,3-dithiole

AU Rixman, Monica A.; Sandman, Daniel J.

CS Center for Advanced Materials, Department of Chemistry, University of
Massachusetts-Lowell, Lowell, MA, 01854-2881, USA

SO Book of Abstracts, 217th ACS National Meeting, Anaheim, Calif., March
21-25 (1999), CHED-261 Publisher: American Chemical Society, Washington,
D. C.

CODEN: 67GHA6

DT Conference; Meeting Abstract

LA English

AB Polymers and porphyrines based on conjugated C=N bonds have been of great
interest for many years now, perhaps the most well-known of which is the
cyclotetramer phthalocyanine, a compd. currently used in a myriad of
industrial applications. The structurally similar title compd.,
previously available as a minor reaction byproduct, has been synthesized
by a three step route and completely characterized. When reacted with
lithium n-butoxide in n-butanol, reagents that would be expected to
produce a mol. tetraazaporphine much like phthalocyanine, the title compd.
reacts to give a linear conjugated polymer with a wt. av. mol. wt. in the
range 17,000-60,000 as detd. by GPC vs. polystyrene stds. Based on

information from elemental anal., ***IR***, ¹H NMR, and ¹³C NMR spectroscopy, a structure for the polymer has been proposed. The polymer has several broad absorption maxima from 530-850nm, as well as an intense emission spectrum. Attempts to copolymerize ***phthalocyanine*** precursors with the title compd. have yielded interesting results. These results, as well as a mechanistic discussion, electrochem. data of the monomer, cond. studies of thin films of the polymer, thermal properties of the polymer, and results of different routes in the attempt to cyclotetramerize the title compd. will be presented during the poster session.

L9 ANSWER 9 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1998:441262 CAPLUS

DN 129:181340

ED Entered STN: 17 Jul 1998

TI Influence of nitrogen-containing precursors on the electrocatalytic activity of ***heat*** -treated Fe(OH)₂ on carbon black for O₂ reduction

AU Cote, R.; Lalande, G.; Guay, D.; Dodelel, J. P.; Denes, G.

CS INRS-Energie et Materiaux, Varennes, QC, J3X 1S2, Can.

SO Journal of the Electrochemical Society (1998), 145(7), 2411-2418

CODEN: JESOAN; ISSN: 0013-4651

PB Electrochemical Society

DT Journal

LA English

CC 72-2 (Electrochemistry)

Section cross-reference(s): 67

AB Ferrous hydroxide Fe(OH)₂ gel was adsorbed on carbon black to produce Fe(OH)₂/C. Various N-contg. precursors were then either adsorbed on this material before pyrolysis at 1000.degree. in Ar or introduced as vapors in the reactor during the pyrolysis step. The N-contg. precursors adsorbed on Fe(OH)₂/C were either polyacrylonitrile (PAN), tetracyanoquinodimethane (TCNQ), or metal-free phthalocyanine (H₂Pc), while the N-contg. vapors injected into the reactor were acetonitrile (CH₃CN) or ammonia (NH₃). The resulting materials were characterized by x-ray diffraction anal., TEM, and XPS. Their electrochem. activities for O₂ redn. were detd. using a rotating disk electrode in O₂-satd. H₂SO₄ at pH 0.5. Upon heating, Fe(OH)₂/C is mostly transformed into iron carbide aggregates. Adding a N-contg. species during the pyrolysis of Fe(OH)₂/C is essential for obtaining catalytic activity of O₂ redn. However, all N-contg. precursors are not equiv. The catalytic activity increases along the series: PAN < TCNQ < H₂Pc. This series also represents an increasing polarizability of the N-contg. precursor. The effect of NH₃ and CH₃CN vapors are equiv., yielding slightly higher electroactivities than those obtained with adsorbed PAN. All N-contg. precursors generate pyrolysis products contg. C and N atoms. This is also true for NH₃ vapors since NH₃ reacts with the carbon support at 1000.degree.. Deconvolution of the N1s core level spectra of the catalytic materials leads to the identification of three sep. contributions assigned to pyridinic, pyrrolic, and graphitic-type nitrogens. None of these N-type contributions alone seem to be responsible for the catalytic activity.

ST nitrogen precursor electrocatalytic activity oxygen redn; ferrous hydroxide carbon black electrocatalyst redn; polyacrylonitrile precursor electrocatalytic activity oxygen redn; TCNQ precursor electrocatalytic activity oxygen redn; ***phthalocyanine*** ***precursor*** electrocatalytic activity oxygen redn; ammonia precursor electrocatalytic activity oxygen redn; acetonitrile precursor electrocatalytic activity oxygen redn; adsorbed nitrogen precursor electrocatalyst oxygen redn; pyrolysis nitrogen precursor ferrous hydroxide carbon

IT Reduction catalysts

(electrochem.; Fe(OH)₂ on carbon black and effect of pyrolysis of nitrogen-contg. precursors on Fe(OH)₂ on carbon black for oxygen)

IT Carbon black, uses

RL: CAT (Catalyst use); PRP (Properties); USES (Uses)

(influence of nitrogen-contg. precursors on electrocatalytic activity of ***heat*** -treated Fe(OH)₂ on carbon black for O₂ redn.)

IT Cyclic voltammetry

(of Fe(OH)₂ on carbon black heated in presence of nitrogen-contg. compd. in soln. contg. sulfuric acid in oxygen electrocatalytic redn. study)

IT Thermal decomposition

(of Fe(OH)₂ on carbon black in presence of nitrogen-cong. precursors)

for electrocatalysts for oxygen redn.)

IT Binding energy
(of ***heat*** -treated Fe(OH)2 on carbon black in presence of
nitrogen-contg. compds. for electrocatalysts for oxygen redn.)

IT Adsorbed substances
(pyrolysis of nitrogen-contg. precursors on Fe(OH)2 on carbon black for
electrocatalyst for oxygen redn.)

IT 7664-93-9, Sulfuric acid, uses
RL: NUU (Other use, unclassified); PRP (Properties); USES (Uses)
(cyclic voltammetry of Fe(OH)2 on carbon black heated in presence of
nitrogen-contg. compd. in soln. contg. sulfuric acid in oxygen
electrocatalytic redn. study)

IT 7727-37-9D, Nitrogen, pyridinic and pyrrolic and graphitic type, uses
RL: CAT (Catalyst use); FMU (Formation, unclassified); PRP (Properties);
FORM (Formation, nonpreparative); USES (Uses)
(in electrocatalysts for oxygen redn.)

IT 18624-44-7, Iron hydroxide Fe(OH)2
RL: CAT (Catalyst use); PRP (Properties); USES (Uses)
(influence of nitrogen-contg. precursors on electrocatalytic activity
of ***heat*** -treated Fe(OH)2 on carbon black for O2 redn.)

IT 7782-44-7, Oxygen, properties
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(influence of nitrogen-contg. precursors on electrocatalytic activity
of ***heat*** -treated Fe(OH)2 on carbon black for O2 redn.)

IT 7664-41-7, Ammonia, properties
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(pyrolysis of Fe(OH)2/carbon black in presence of NH3 vapor for
electrocatalyst for oxygen redn.)

IT 75-05-8, Acetonitrile, properties
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(pyrolysis of Fe(OH)2/carbon black in presence of acetonitrile vapor
for electrocatalyst for oxygen redn.)

IT 1518-16-7, TCNQ
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(pyrolysis of TCNQ on Fe(OH)2 on carbon black for electrocatalyst for
oxygen redn.)

IT 574-93-6, Phthalocyanine
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(pyrolysis of phthalocyanine on Fe(OH)2 on carbon black for
electrocatalyst for oxygen redn.)

IT 25014-41-9, Polyacrylonitrile
RL: PRP (Properties); RCT (Reactant); RACT (Reactant or reagent)
(pyrolysis of polyacrylonitrile on Fe(OH)2 on carbon black for
electrocatalyst for oxygen redn.)

RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD

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L9 ANSWER 10 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:804272 CAPLUS

DN 128:37052

ED Entered STN: 26 Dec 1997

TI Porphyrin- and metalloporphyrin- derived carbons as models for coal char
combustion and pyrolysis

AU Jones, Jenny M.; Agnew, Jonathon; Kennedy, James; Watts, Ben

CS Department of Fuel and Energy, University of Leeds, Leeds, LS2 9JT, UK

SO Fuel (1997), 76(13), 1235-1240

CODEN: FUELAC; ISSN: 0016-2361

PB Elsevier Science Ltd.

DT Journal

LA English

CC 51-18 (Fossil Fuels, Derivatives, and Related Products)

AB The pyrolysis and combustion characteristics of carbons prep'd. by
carbonization of porphyrin- and metalloporphyrin-contg. (or
phthalocyanine - and vanadyl ***phthalocyanine*** -contg.)
precursors are reported. All the metals studied--V, Fe, Co and
Cu-catalyzed the combustion of the carbons, regardless of ***heat***
-treatment temp. In general, the reactivities of all the carbons
decreased with increasing ***heat*** -treatment temp., and a
compensation effect on the rate was obsd., with both the activation
energies and the pre-exponential factors decreasing. The metals have a
marked influence on the release of nitrogen species during pyrolysis.
Less HCN and CH3CN are released in the volatiles for metalloporphyrin-
derived carbons than for porphyrin-derived carbons. The vanadyl system
was also studied for N release during combustion. Less fuel-N is
converted to NO and more is converted to N and HCN during combustion of
this carbon.

ST porphyrin carbon model coal combustion pyrolysis

IT Air pollution

(control; porphyrin- and metalloporphyrin- derived carbons as models
for coal char combustion and pyrolysis)

IT Chars

Coking

Combustion

Simulation and Modeling, physicochemical

(porphyrin- and metalloporphyrin- derived carbons as models for coal
char combustion and pyrolysis)

IT Coal, processes

Metalloporphyrins

Porphyrins

RL: PEP (Physical, engineering or chemical process); PRP (Properties);
PROC (Process)

(porphyrin- and metalloporphyrin- derived carbons as models for coal
char combustion and pyrolysis)

IT 208-96-8, Acenaphthylene 574-93-6, Phthalocyanine 917-23-7,

Tetraphenyl porphyrin

RL: POL (Pollutant); OCCU (Occurrence)

(model comp'd.; porphyrin- and metalloporphyrin- derived carbons as
models for coal char combustion and pyrolysis)

IT 7440-44-0, Carbon, processes

RL: PEP (Physical, engineering or chemical process); PRP (Properties);
 PROC (Process)
 (porphyrin- and metalloporphyrin- derived carbons as models for coal
 char combustion and pyrolysis)
 IT 11104-93-1, Nitrogen oxide (NOx), occurrence
 RL: POL (Pollutant); OCCU (Occurrence)
 (porphyrin- and metalloporphyrin- derived carbons as models for coal
 char combustion and pyrolysis)
 RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
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 L9 ANSWER 11 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1997:784194 CAPLUS
 DN 128:89847
 ED Entered STN: 15 Dec 1997
 TI Phthalocyanines, their intermediate phthalonitriles, their manufacture,
 and near- ***IR*** -absorbing materials
 IN Taniguchi, Junichi; Masaoka, Toshihiro; Fujita, Shigeo; Kumagai, Yojiro
 PA Yamamoto Chemicals Inc., Japan; Mitsui Toatsu Chemicals, Inc.
 SO Jpn. Kokai Tokkyo Koho, 17 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07C323-63
 ICS C07C319-14; C09B047-20
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 25, 41, 73
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09316049	A2	19971209	JP 1996-129986	19960524
JP 1996-129986		19960524		

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09316049	ICM	C07C323-63
	ICS	C07C319-14; C09B047-20
	IPCI	C07C0323-63 [ICM,6]; C07C0319-14 [ICS,6]; C09B0047-20 [ICS,6]

 OS MARPAT 128:89847
 GI

AB Phthalocyanines are manufd. by reacting phthalonitriles I [R1, R2 = (alkoxy)alkyl] with 2-H2NC6H4SH (II) in the presence of bases, treating with R3SH [R3 = alkyl, (substituted) Ph, (substituted) naphthyl; R3 .noteq. 2-aminophenyl], and reacting the resulting phthalonitriles III (R1-R3 = same as above) with metals or their derivs. Near- ***IR*** -absorbing materials contg. the phthalocyanines are useful for optical cards, photoconductors, optical filters, films, eye glasses, etc. Thus, 184.5 g I (R1 = R2 = isopentyl) was treated with 78.3 g II and K2CO3 in Me2CO-H2O at room temp. for 3 h to give 192.5 g 4-(2-aminophenylthio)-5-chloro-3,6-diisopentoxyphtalonitrile, 13.7 g of which was treated with 4.0 g PhSH and K2CO3 in Me2CO-H2O at room temp. for 3 h to give 11.4 g III (R1 = R2 = isopentyl; R3 = Ph) (IV). IV (2.5 g) was treated with CuCl and DBU in n-pentyl alc. under reflux for 25 h to give 1.9 g compd. showing max. absorption at 921 nm (in PhMe) and extinction coeff. 5.35 .times. 104 mL/g-cm.

ST near ***IR*** absorbing phthalocyanine; phthalonitrile prepn
phthalocyanine intermediate; chlorophthalonitrile aminothiophenol reaction

IT Nitriles, preparation
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)
(dinitriles; prepn. of near- ***IR*** -absorbing
phthalocyanines and their ***precursor*** phthalonitriles)

IT ***IR*** radiation
(near- ***IR*** ; polystyrene contg. near- ***IR*** -absorbing
phthalocyanines for filters)

IT Dyes
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(phthalocyanine; prepn. of near- ***IR*** -absorbing
phthalocyanines and their ***precursor*** phthalonitriles)

IT Optical absorption
Optical filters
(polystyrene contg. near- ***IR*** -absorbing phthalocyanines for
filters)

IT ***IR*** spectra
(prepn. of near- ***IR*** -absorbing ***phthalocyanines*** and
their ***precursor*** phthalonitriles)

IT 121912-97-8P, 1,4-Bis(.alpha.,.alpha.-dimethylisocyanatomethyl)benzne-
1,3,5-tris(3-mercaptopropyl)isocyanurate copolymer
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP
(Preparation); USES (Uses)
(moldings contg. near- ***IR*** -absorbing phthalocyanines)

IT 9003-53-6, Polystyrene
RL: POF (Polymer in formulation); TEM (Technical or engineered material
use); USES (Uses)
(polystyrene contg. near- ***IR*** -absorbing phthalocyanines for
filters)

IT 7646-85-7DP, Zinc chloride, reaction products with phthalonitriles
7647-10-1DP, Palladium dichloride, reaction products with phthalonitriles
7718-54-9DP, Nickel chloride, reaction products with phthalonitriles
7718-98-1DP, Vanadium trichloride, reaction products with phthalonitriles
7758-89-6DP, Cuprous chloride, reaction products with phthalonitriles
7758-95-4DP, Lead chloride, reaction products with phthalonitriles
200954-11-6DP, reaction products with cuprous and vanadium chloride
200954-13-8DP, reaction products with cuprous and vanadium chloride
200954-17-2DP, reaction products with vanadium chloride 200954-21-8DP,
reaction products with cuprous and vanadium chloride 200954-23-ODP,
reaction products with cuprous chloride
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or
engineered material use); PREP (Preparation); USES (Uses)
(prepn. of near- ***IR*** -absorbing ***phthalocyanines*** and
their ***precursor*** phthalonitriles)

IT 181578-67-6P, 4-(2-Aminophenylthio)-5-chloro-3,6-
diisopentoxyphtalonitrile 200954-11-6P 200954-13-8P 200954-15-0P
200954-17-2P 200954-21-8P 200954-23-0P
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. of near- ***IR*** -absorbing ***phthalocyanines*** and
their ***precursor*** phthalonitriles)
IT 91-60-1, 2-Naphthalenethiol 108-98-5, Thiophenol, reactions 111-88-6,
n-Octanethiol 137-07-5, 2-Aminothiophenol 1193-02-8, 4-Aminothiophenol
2396-68-1, 4-tert-Butylthiophenol 130107-21-0, 3,6-Diisopentoxy-4,5-
dichlorophthalonitrile 200954-19-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of near- ***IR*** -absorbing ***phthalocyanines*** and
their ***precursor*** phthalonitriles)

L9 ANSWER 12 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:602737 CAPLUS

DN 127:297523

ED Entered STN: 22 Sep 1997

TI ***Heat*** stabilizers for dyes, ***heat*** -resistant dyes, and
process of pigmented materials manufacture

IN Sakane, Masayasu; Ishibashi, Tatsuo; Inago, Yoshihide; Suyama, Hiroshi;
Okumura, Shuzo

PA Nissha Printing Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B067-00

ICS G02B005-20; G02B005-22

CC 57-1 (Ceramics)

Section cross-reference(s): 37, 41, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09235483	A2	19970909	JP 1996-71151	19960229
PRAI	JP 1996-71151		19960229		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 09235483	ICM	C09B067-00
	ICS	G02B005-20; G02B005-22
	IPCI	C09B067-00 [ICM,6]; G02B0005-20 [ICS,6]; G02B0005-22 [ICS,6]

AB The ***heat*** stabilizers contain org. S compds., org. P compds.,
and/or phenolic compds. The ***heat*** -resistant dyes contain the
stabilizes and dyes. Substrates are pigmented by using the stabilizers
and the dyes which are applied sep. or by using the ***heat***
-resistant dyes. The dyes are esp. suitable for coloring plastics, glass,
metals, etc. Thus, an Al2O3-coated glass plate was processed to form a
black matrix, green and red pixels, soaked in a bath of Brilliant Blue B
to form a blue pixel, further soaked in mercaptopropionic acid soln., and
washed to give a product.

ST ***heat*** stabilizer org sulfur dye; phosphorus compd ***heat***
stabilizer dye; phenolic compd ***heat*** stabilizer dye;
mercaptopropionic acid ***heat*** stabilizer dye; acid dye
heat stabilizer mercaptopropionic acid; glass ***heat***
resistant dye pigmented

IT Dyeing

Heat stabilizers
(***heat*** stabilizers contg. org. S, P, or phenols for
heat -resistant dyes and process of pigmented materials manuf.)

IT Glass, processes

RL: PEP (Physical, engineering or chemical process); PROC (Process)

(***heat*** stabilizers contg. org. S, P, or phenols for
heat -resistant dyes and process of pigmented materials manuf.)

IT 147-93-3, Thiosalicylic acid 637-89-8, 4-Hydroxythiophenol 1034-49-7,
Methylenetriphenylphosphonium bromide 30232-12-3, Mercaptopropionic acid
RL: MOA (Modifier or additive use); TEM (Technical or engineered material
use); USES (Uses)

(***heat*** stabilizers contg. org. S, P, or phenols for
heat -resistant dyes and process of pigmented materials manuf.)

IT ***145017-91-0***, Brilliant Blue B 197179-34-3, Chuganol Blue G
197179-65-0, Sandolan Cyanine N-GS

RL: TEM (Technical or engineered material use); USES (Uses)

(***heat*** stabilizers contg. org. S, P, or phenols for
heat -resistant dyes and process of pigmented materials manuf.)

L9 ANSWER 13 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:35361 CAPLUS

DN 126:90713

ED Entered STN: 17 Jan 1997

TI ***Infrared*** printout systems based on ***phthalocyanine***
precursors

AU Anon.

CS UK

SO Research Disclosure (1996), 392, P773 (No. 39219)

CODEN: RSDSBB; ISSN: 0374-4353

PB Kenneth Mason Publications Ltd.

DT Journal; Patent

LA English

CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 74

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI RD 392019		19961210		
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PRAI RD 1996-392019		19961210		
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OS MARPAT 126:90713

AB Colored phthalocyanines are formed from a thermal imaging medium with near- ***IR*** radiation by including in the medium (a) a 1,3-diiminoisoindoline and/or a related ***phthalocyanine*** ***precursor***, (b) a thermally cleavable adduct capable of generating a phenolic compd. with reducing properties, and (c) a near- ***IR*** absorbing dye (photosensitizer).

ST thermal imaging compn ***phthalocyanine*** ***precursor***; near ***IR*** printout system

IT Imaging
(thermal; near- ***IR*** printout systems based on ***phthalocyanine*** ***precursors***)

IT 574-93-6DP, Phthalocyanine, derivs.
RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(near- ***IR*** printout systems based on ***phthalocyanine*** ***precursors***)

IT 3468-11-9D, 1,3-Diiminoisoindoline, derivs.
RL: RCT (Reactant); RACT (Reactant or reagent)
(near- ***IR*** printout systems based on ***phthalocyanine*** ***precursors***)

IT 185634-24-6D, alkyl derivs.
RL: NUU (Other use, unclassified); USES (Uses)
(photosensitizer; near- ***IR*** printout systems based on ***phthalocyanine*** ***precursors***)

L9 ANSWER 14 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:278638 CAPLUS

DN 122:214886

ED Entered STN: 07 Jan 1995

TI Polymeric ***phthalocyanines*** and ***precursors***

IN Hay, Allan S.

PA Can.

SO U.S., 11 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08F122-30

INCL 526297000

CC 35-5 (Chemistry of Synthetic High Polymers)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI US 5369203	A	19941129	US 1993-50813	19930421
US 5430124	A	19950704	US 1994-296148	19940826
US 5545832	A	19960813	US 1995-395718	19950228
US 5639849	A	19970617	US 1996-613446	19960301
PRAI US 1993-50813	A3	19930421		
US 1994-296148	A3	19940826		
US 1995-395718	A3	19950228		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5369203	ICM	C08F122-30
	INCL	526297000
	IPCI	C08F0122-30 [ICM,5]
	IPCR	C08F0022-00 [I,C]; C08F0022-30 [I,A]
	NCL	526/297.000; 526/300.000
	ECLA	C08F022/30
US 5430124	IPCI	C08G0065-40 [ICM,6]
	IPCR	C08F0022-00 [I,C]; C08F0022-30 [I,A]
	NCL	528/211.000
	ECLA	C08F022/30
US 5545832	IPCI	C08G0065-40 [ICM,6]; C08G0063-00 [ICS,6]; C08F0020-42 [ICS,6]
	IPCR	C08F0022-00 [I,C]; C08F0022-30 [I,A]
	NCL	528/211.000; 526/300.000; 528/208.000; 528/217.000
	ECLA	C08F022/30
US 5639849	IPCI	C08G0065-40 [ICM,6]; C08G0065-38 [ICS,6]; G03G0015-02 [ICS,6]; G03G0015-08 [ICS,6]
	IPCR	C08F0022-00 [I,C]; C08F0022-30 [I,A]
	NCL	528/211.000; 430/059.400; 430/078.000; 430/093.000; 430/096.000; 430/311.000; 430/319.000; 526/300.000; 528/208.000; 528/217.000
	ECLA	C08F022/30
AB		Fumaronitriles and dicyanophenanthrenes, for example, bis(4-fluorophenyl)fumaronitrile and 3,6-difluoro-9,10-dicyanophenanthrene which can be produced from the fumaronitrile, produce useful homopolymers and copolymers for high temp. applications. The homopolymers and copolymers derived from the dicyanophenanthrenes can be converted to colored phthalocyanine group-contg. polymers which are sol. in org. solvents and can be cast as films which may form the charge generating layer of an electrophotog. device.
ST		phthalocyanine polyether electrophotog device
IT		Electrophotographic photoconductors and photoreceptors
		Heat -resistant materials
		(polymeric ***phthalocyanines*** and ***precursors***)
IT		Polyethers, preparation
		RL: SPN (Synthetic preparation); PREP (Preparation)
		(cyano-contg., polymeric ***phthalocyanines*** and ***precursors***)
IT		Polysulfones, preparation
		RL: SPN (Synthetic preparation); PREP (Preparation)
		(polyether-, cyano-contg., polymeric ***phthalocyanines*** and ***precursors***)
IT		Polyethers, preparation
		RL: SPN (Synthetic preparation); PREP (Preparation)
		(polysulfone-, cyano-contg., polymeric ***phthalocyanines*** and ***precursors***)
IT		459-22-3, 4-Fluorobenzyl cyanide
		RL: RCT (Reactant); RACT (Reactant or reagent)
		(polymeric ***phthalocyanines*** and ***precursors***)
IT		91-15-6DP, 1,2-Benzenedicarbonitrile, reaction products with cyano-contg. polyethers
		162010-21-1P 162010-22-2P 162010-23-3P 162010-24-4P
		162010-25-5P 162010-26-6P 162010-27-7P 162010-28-8P 162010-29-9P
		162010-30-2P 162010-31-3P 162010-33-5DP, copper ***phthalocyanine***
		derivs. 162010-33-5P 162010-34-6P 162010-35-7P 177607-66-8P
		RL: SPN (Synthetic preparation); PREP (Preparation)
		(polymeric ***phthalocyanines*** and ***precursors***)
L9		ANSWER 15 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
AN		1993:195120 CAPLUS
DN		118:195120
ED		Entered STN: 14 May 1993
TI		Catalyst for fuel-cell electrodes
IN		Hards, Graham Alan; Cooper, Susan Joy; Thompsett, David
PA		Johnson Matthey PLC, UK
SO		Eur. Pat. Appl., 18 pp.
		CODEN: EPXXDW
DT		Patent
LA		English
IC		ICM B01J037-08
		ICS B01J021-18; B01J023-38; B01J023-40; H01M004-90; H01M004-92

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 512713	A1	19921111	EP 1992-303590	19920422
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, MC, NL, PT, SE				
	US 5316990	A	19940531	US 1992-872301	19920423
	NO 9201732	A	19921105	NO 1992-1732	19920430
	CA 2067833	AA	19921105	CA 1992-2067833	19920501
	CA 2067833	C	20020924		
	JP 05129023	A2	19930525	JP 1992-112613	19920501
PRAI	GB 1991-9751	A	19910504		

CLASS

	PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
	EP 512713	ICM	B01J037-08
		ICS	B01J021-18; B01J023-38; B01J023-40; H01M004-90; H01M004-92
		IPCI	B01J0037-08 [ICM,5]; B01J0021-18 [ICS,5]; B01J0023-38 [ICS,5]; B01J0023-40 [ICS,5]; H01M0004-90 [ICS,5]; H01M0004-92 [ICS,5]
		IPCR	B01J0021-00 [I,C]; B01J0021-18 [I,A]; B01J0023-38 [I,A]; B01J0023-38 [I,C]; B01J0037-00 [I,C]; B01J0037-02 [I,A]; B01J0037-08 [I,A]; H01M0004-86 [N,A]; H01M0004-86 [N,C]; H01M0004-90 [I,A]; H01M0004-90 [I,C]; H01M0004-92 [I,A]; H01M0008-04 [N,A]; H01M0008-04 [N,C]
US	5316990	IPCI	B01J0037-34 [ICM,5]
		IPCR	B01J0021-00 [I,C]; B01J0021-18 [I,A]; B01J0023-38 [I,A]; B01J0023-38 [I,C]; B01J0037-00 [I,C]; B01J0037-02 [I,A]; B01J0037-08 [I,A]; H01M0004-86 [N,A]; H01M0004-86 [N,C]; H01M0004-90 [I,A]; H01M0004-90 [I,C]; H01M0004-92 [I,A]; H01M0008-04 [N,A]; H01M0008-04 [N,C]
		NCL	502/005.000; 502/163.000; 502/167.000
		ECLA	B01J021/18; B01J023/38; B01J037/02B2; B01J037/08B4; H01M004/90B; H01M004/92
NO	9201732	IPCI	B01J0023-38 [ICM,5]; B01J0037-00 [ICS,5]; H01M0004-92 [ICS,5]
		IPCR	B01J0021-00 [I,C]; B01J0021-18 [I,A]; B01J0023-38 [I,A]; B01J0023-38 [I,C]; B01J0037-00 [I,C]; B01J0037-02 [I,A]; B01J0037-08 [I,A]; H01M0004-86 [N,A]; H01M0004-86 [N,C]; H01M0004-90 [I,A]; H01M0004-90 [I,C]; H01M0004-92 [I,A]; H01M0008-04 [N,A]; H01M0008-04 [N,C]
CA	2067833	IPCI	B01J0031-00 [ICM,5]; B01J0031-40 [ICS,5]; H01M0004-90 [ICS,5]; H01M0004-88 [ICS,5]
		IPCR	B01J0021-00 [I,C]; B01J0021-18 [I,A]; B01J0023-38 [I,A]; B01J0023-38 [I,C]; B01J0037-00 [I,C]; B01J0037-02 [I,A]; B01J0037-08 [I,A]; H01M0004-86 [N,A]; H01M0004-86 [N,C]; H01M0004-90 [I,A]; H01M0004-90 [I,C]; H01M0004-92 [I,A]; H01M0008-04 [N,A]; H01M0008-04 [N,C]
JP	05129023	IPCI	H01M0004-90 [ICM,5]

AB The catalyst is derived from precious metal-contg. macrocyclic compd. (***phthalocyanine*** or tetraazaannulene) ***precursors*** contg. precious metal in 0 oxidn. state, and is supported on high-surface area C. The precious metal is selected from the Pt, Pd, Ru, Os, Rh, ***Ir***, Ag, and Au, esp. Pt and ***Ir***. The loading of the precious metal is 0.05-20 wt.% of the C support. The material may be prepd. by activating the macrocyclic compd., e.g., by a voltage sweep. The catalyst has improved activity and resistance to deactivation.

ST fuel cell electrode catalyst; platinum catalyst fuel cell electrode; iridium catalyst fuel cell electrode

IT Electrodes

(fuel-cell, catalysts for, prepn. of, from precious metal-contg. macrocyclic compd. precursors)

IT Annulenes

RL: USES (Uses)

(tetraaza-, platinum complexes, in electrode catalyst prepn. for fuel cells)

IT 7439-88-5P, Iridium, uses 7440-04-2P, Osmium, uses 7440-05-3P, Palladium, uses 7440-06-4P, Platinum, uses 7440-16-6P, Rhodium, uses 7440-18-8P, Ruthenium, uses 7440-22-4P, Silver, uses 7440-57-5P, Gold, uses
 RL: PREP (Preparation)
 (electrode catalysts, prepn. of, from metal-contg. macrocyclic compd. precursors, for fuel cells)

IT 14075-08-2, Platinum phthalocyanine 47823-08-5, Iridium phthalocyanine 77624-36-3
 RL: USES (Uses)
 (in electrode catalyst prepn. for fuel cells)

L9 ANSWER 16 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1992:652370 CAPLUS
 DN 117:252370
 ED Entered STN: 26 Dec 1992
 TI Polymeric ***phthalocyanines*** and their ***precursors*** . 17. Structure and photoelectrochemical properties of thin films of polymeric phthalocyanines from bridged diphthalonitriles
 AU Yanagi, Hisao; Wada, Minoru; Ueda, Yasukiyo; Ashida, Micho; Woehrle, Dieter
 CS Fac. Eng., Kobe Univ., Kobe, 657, Japan
 SO Makromolekulare Chemie (1992), 193(8), 1903-11
 CODEN: MACEAK; ISSN: 0025-116X
 DT Journal
 LA English
 CC 37-5 (Plastics Manufacture and Processing)
 Section cross-reference(s): 72

AB Thin films of polymeric phthalocyanines were prepd. by in-situ syntheses from oxy- and phenoxy-bridged diphthalonitriles with copper layers deposited on Ti plates and KCl crystals. The structure of the polymers was characterized by visible, ***IR***, and photoelectron spectra, and SEM. Photoelectrochem. properties of polymeric phthalocyanine electrodes were investigated in Ti/polymer/Fe(CN)₆³⁻/4-/Pt cells. The electrode shows n-type or p-type semiconducting behavior under illumination depending on structure of the polymers. The current-voltage curve for one of the electrodes did not show remarkable rectification or photocurrents. The photoelectrochem. properties were related to the structural uniformity of the polymers.

ST copper phthalocyanine polymer structure photoelectrochem; diphthalonitrile deriv copper copolymer property

IT Polymer morphology
 (of polymeric phthalocyanine thin films)

IT Polyethers, properties
 RL: PRP (Properties)
 (phthalocyanine-contg., structure and photoelectrochem. properties of thin films of)

IT Electrodes
 (titanium, polymeric phthalocyanine film-coated, photoelectrochem. properties of)

IT 7440-32-6, Titanium, properties
 RL: PRP (Properties)
 (electrodes, polymeric phthalocyanine film-coated, photoelectrochem. properties of)

IT 7778-80-5, Potassium sulfate, properties 13746-66-2, Potassium ferricyanide 13943-58-3, Potassium ferrocyanide
 RL: PRP (Properties)
 (photoelectrochem. properties of titanium electrodes coated with polymeric phthalocyanine films in presence of)

IT 574-93-6D, 29H,31H-Phthalocyanine, derivs., polymers 7440-50-8D, Copper, polyphthalocyanine complexes 77810-24-3D, copper complexes 91191-63-8D, copper complexes 94649-24-8D, copper complexes
 RL: PRP (Properties)
 (structure and photoelectrochem. properties of thin films of)

L9 ANSWER 17 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1992:640447 CAPLUS
 DN 117:240447
 ED Entered STN: 13 Dec 1992
 TI New preparation method of ox-red catalysts via topological heterogenization of metallocomplexes
 AU Romanovskii, B. V.; Gabrielov, A. G.

CS Chem. Dep., Moscow State Univ., Moscow, 117234, USSR
 SO Studies in Surface Science and Catalysis (1992), 72(New Dev. Sel. Oxid.
 Heterog. Catal.), 443-52
 CODEN: SSCTDM; ISSN: 0167-2991
 DT Journal
 LA English
 CC 67-1 (Catalysis, Reaction Kinetics, and Inorganic Reaction Mechanisms)
 Section cross-reference(s): 59
 AB A new synthesis method for zeolite-included metal phthalocyanines (PcM's)
 using preadsorbed bis-cyclopentadienyl as well as bi- and trinuclear
 carbonyl complexes of Ni, Ru, Fe, Co and Os as precursors is reported.
 The zeolite-included PcM's were characterized by electronic spectroscopy,
 FT- ***IR*** , and XPS techniques. The formation of PcM's in zeolite
 matrix can proceed to completion. The mols. of PcM are distributed rather
 homogeneously through the matrix bulk, the PcM's being localized inside
 the zeolite large cages. The bivalent state for the included Fe, Co and
 Ni complexes was found while the Ru and Os phthalocyanines seem to contain
 trivalent metals. Nitrogen oxides can be reduced by both CO and mol. H at
 200-300.degree. using the zeolite inclusion PcM's as catalysts. Their
 catalytic activity depends on central atom nature, its valency and
 coordination state.
 ST metal phthalocyanine complex zeolite redox catalyst
 IT Zeolites, uses
 RL: CAT (Catalyst use); USES (Uses)
 (catalysts from encaged transition metal phthalocyanine complexes and,
 prepn. and characterization of)
 IT Valence
 (of transition metals as phthalocyanine complexes encaged in zeolites,
 catalytic activity in relation to)
 IT Redox reaction catalysts
 (transition metal phthalocyanine complexes encaged in zeolites, prepn.
 and characterization of)
 IT 574-93-6DP, Phthalocyanine, transition metal complexes 7439-89-6DP,
 Iron, phthalocyanine complex 7440-02-0DP, Nickel, phthalocyanine complex
 7440-04-2DP, Osmium, phthalocyanine complex 7440-18-8DP, Ruthenium,
 phthalocyanine complex 7440-48-4DP, Cobalt, phthalocyanine complex
 RL: CAT (Catalyst use); PREP (Preparation); USES (Uses)
 (catalysts from zeolite and, prepn. and characterization of)
 IT 102-54-5, Ferrocene 1271-28-9, Nickelocene 1287-13-4, Ruthenocene
 10210-68-1, Dicobalt octacarbonyl 13463-40-6, Iron pentacarbonyl
 15696-40-9, Triosmium dodecacarbonyl
 RL: USES (Uses)
 (***precursor*** , for nickel ***phthalocyanine*** complex
 encaged in zeolite)
 L9 ANSWER 18 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1991:615682 CAPLUS
 DN 115:215682
 ED Entered STN: 15 Nov 1991
 TI Structure and composition of thin films of peripherally unsubstituted
 phthalocyanine deposited using the Langmuir-Blodgett technique
 AU George, R. D.; McMillan, P. F.; Burrows, V. A.; Hervig, R.
 CS Dep. Chem., Arizona State Univ., Tempe, AZ, 85287, USA
 SO Thin Solid Films (1991), 203(2), 303-16
 CODEN: THSFAP; ISSN: 0040-6090
 DT Journal
 LA English
 CC 66-3 (Surface Chemistry and Colloids)
 Section cross-reference(s): 73
 AB Langmuir-Blodgett films of peripherally unsubstituted phthalocyanine (Pc)
 were deposited on substrates of silicon, aluminized silicon and gallium
 arsenide by means of a ***precursor*** compd., dilithium
 phthalocyanine (Li2Pc), from an aq. subphase. The resulting films
 were chem. and structurally characterized using surface ***IR***
 reflection spectroscopy, Raman spectroscopy, and secondary ion mass
 spectrometry. The results show that the films contain both Li2Pc and
 metal-free phthalocyanine, indicating that hydrolysis of Li2Pc by the aq.
 subphase is not complete, contrary to previous assumptions in the
 literature. The resulting films are brittle and polycryst. in nature,
 with little or no preferred mol. orientation. This behavior is thought to
 be due to the mol. assocn. of the Li2Pc both in the spreading soln. and on
 the aq. subphase.

ST phthalocyanine film structure ***IR*** spectra
IT ***Infrared*** spectra
Raman spectra
Surface structure
(of phthalocyanine films on silicon and gallium arsenide)
IT Adsorbed substances
(phthalocyanine, on silicon and gallium arsenide, spectroscopic study of)
IT 574-93-6, Phthalocyanine
RL: PRP (Properties)
(adsorbed films of, on silicon and gallium arsenide, structure and compn. of)
IT 25510-41-2, Dilithium phthalocyanine
RL: PRP (Properties)
(adsorbed phthalocyanine films contg., on silicon and gallium arsenide, spectroscopic study of)
IT 7429-90-5, Aluminum, properties
RL: PRP (Properties)
(adsorbed phthalocyanine films on silicon treated with, SIMS study of)
IT 1303-00-0, Gallium arsenide, properties 7440-21-3, Silicon, properties
RL: PRP (Properties)
(adsorbed phthalocyanine films on, structure and compn. of)

L9 ANSWER 19 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1989:595721 CAPLUS

DN 111:195721

ED Entered STN: 25 Nov 1989

TI Polymeric ***phthalocyanines*** and their ***precursors*** . 16.

A structure model for polymeric phthalocyanines

AU Knothe, Gerhard; Woehrle, Dieter

CS Inst. Org. Makromol. Chem., Univ. Bremen, Bremen, 2800/33, Fed. Rep. Ger.

SO Makromolekulare Chemie (1989), 190(7), 1573-86

CODEN: MACEAK; ISSN: 0025-116X

DT Journal

LA English

CC 36-2 (Physical Properties of Synthetic High Polymers)

AB A model for describing the structural features such as d.p., size, and shape of polymeric phthalocyanines is described. Anal. methods such as ***IR***, titrn. of carboxylic end groups, and elemental anal. are used in the structure investigation. The results demonstrate that for polymeric phthalocyanines with cyano end groups, prepd. from 1,2,4,5-benzenetetracarbonitrile, the no. of macrocycles (n) in the polymer is not higher than 7-9, and that linear polymers as well as polymers with two rows are possible. Polymers prepd. from bridged diphthalonitriles are considerably larger, showing a more 2-dimensional structure. For polymeric phthalocyanines with carboxylic end groups, prepd. from 1,2,4,5-benzenetetracarboxylic acid derivs., a linear structure with n = 4-9 is favored.

ST polyphthalocyanine structure model

IT Chains, chemical

(structure of, of polyphthalocyanines, model for)

IT 574-93-6D, Phthalocyanine, derivs., polymers 25931-07-1 25950-43-0

28264-23-5, 1,2,4,5-Benzotetracarbonitrile homopolymer 32882-26-1D,

derivs., polymers 72452-46-1 73273-38-8 73273-39-9 77810-24-3

91191-63-8 94649-24-8 123415-64-5 123415-65-6 123415-66-7

123415-67-8 123415-68-9

RL: PRP (Properties)

(structure of, model for)

L9 ANSWER 20 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1988:455360 CAPLUS

DN 109:55360

ED Entered STN: 19 Aug 1988

TI Polymeric ***phthalocyanines*** and their ***precursors*** . 14.

Synthesis and analytical characterization of polymers from oxy- and arylenedioxy-bridged diphthalonitriles

AU Woehrle, Dieter; Schulte, Bernd

CS Inst. Org. Makromol. Chem., Univ. Bremen, Bremen, D-2800/33, Fed. Rep. Ger.

SO Makromolekulare Chemie (1988), 189(5), 1167-87

CODEN: MACEAK; ISSN: 0025-116X

DT Journal

LA English
CC 35-7 (Chemistry of Synthetic High Polymers)
AB Phthalocyanine moiety-contg. polymers were prepd. by the reaction of several oxy- and arylenedioxy-bridged diphtalonitriles in the absence or the presence of metal salts or metals. The structure of the polymers was thoroughly discussed on the basis of their ***IR*** and UV visible spectra. According to the nitrile end groups detd. by ***IR*** spectroscopy, the structurally uniform polymers consisted of phthalocyanine moieties. Sapon. of the nitrile end groups led to polymeric phthalocyanine with carboxylic acid end groups with a lower degree of annulation than that of the polymers before sapon. Low-mol.-wt. phthalocyanines were prepd. as model compds. for the polymers.
ST oxydiphtalonitrile polyphthalocyanine; arylenedioxydiphtalonitrile polyphthalocyanine
IT Electric conductivity and conduction
(of phthalocyanine polymers)
IT Chains, chemical
(structure of, of phthalocyanine polymers)
IT 574-93-6DP, Phthalocyanine, derivs., polymers 72452-46-1P 77810-24-3P 91191-63-8P 94649-24-8P 115202-10-3DP, sapon. 115202-10-3P 115202-11-4DP, sapon. 115202-11-4P 115202-12-5DP, sapon. 115202-12-5P 115202-13-6DP, sapon. 115202-13-6P 115202-14-7P 115202-15-8P 115202-16-9P 115202-17-0P 115202-18-1P 115202-19-2P 115202-20-5P 115202-21-6P 115202-22-7P 115202-23-8P 115202-24-9P 115202-25-0P 115202-26-1P 115202-27-2P 115214-51-2P 115214-52-3P 115217-97-5P 115231-87-3DP, sapon. 115231-87-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and characterization of)
IT 77447-50-8P 77474-61-4P 115373-25-6P 115501-20-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as model for phthalocyanine polymers)

L9 ANSWER 21 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1988:415451 CAPLUS
DN 109:15451
ED Entered STN: 09 Jul 1988
TI Polymeric ***phthalocyanines*** and their ***precursors*** . 13.
Synthesis, structure and electrochemical properties of thin films of polymeric phthalocyanines from tetracarbonitriles
AU Woehrle, Dieter; Schmidt, Volker; Schumann, Bernd; Yamada, Akira;
Shigehara, Kiyotaka
CS Org. Makromol. Chem., Univ. Bremen, Bremen, D-2800/33, Fed. Rep. Ger.
SO Berichte der Bunsen-Gesellschaft (1987), 91(9), 975-81
CODEN: BBPCAX; ISSN: 0005-9021
DT Journal
LA English
CC 76-2 (Electric Phenomena)
Section cross-reference(s): 36, 73
AB Thin films ((45-1200)-nm-thick) of polymeric phthalocyanines were prepd. by the reaction of Cu films on various carriers with gaseous arom. tetracarbonitriles. The films were characterized by ***IR***, UV/visible, and ESCA spectra. The elec. cond. is of the order of 10⁻²-10⁻⁵ S cm⁻¹. The electrochem. activity of the films on graphite was studied in acid and alk. electrolyte. The films exhibit rapid redn. and reoxidn. The pH dependence corresponds to that of the H electrode approx.
ST copper phthalocyanine polymer cond; optical property phthalocyanine polymer
IT Electric conductivity and conduction
Infrared spectra
Ultraviolet and visible spectra
(of polymeric phthalocyanines from tetracarbonitriles)
IT 7440-50-8DP, complexes with arom. tetracarbonitriles 75810-81-0P
RL: PREP (Preparation)
(synthesis and structure and electrochem. properties of thin films of)
IT 72452-48-3DP, copper complex 91191-63-8DP, copper complex 94649-24-8DP, copper complex
RL: PREP (Preparation)
(synthesis and structure and electrochem. properties of thin films of phthalocyanine-ring contg.)

DN 106:95223
 ED Entered STN: 21 Mar 1987
 TI Planar-type gas sensor for reducing gas used in fabrication of a semiconductor
 IN Shimizu, Tetsuo; Mihira, Hiroshi; Yamamoto, Naoto
 PA Estech K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 3 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM G01N027-12
 CC 79-2 (Inorganic Analytical Chemistry)
 Section cross-reference(s): 76

FAN.CNT 1					
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	----	-----	-----	-----
PI	JP 61116650	A2	19860604	JP 1984-237273	19841109
PRAI	JP 1984-237273		19841109		

CLASS			
PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES	
-----	----	-----	
JP 61116650	ICM	G01N027-12	
	IPCI	G01N0027-12 [ICM,4]	
	IPCR	G01N0027-12 [I,A]; G01N0027-12 [I,C]	

AB The title sensor is fabricated by forming a 1st metal film on a substrate, an insulation film or a semiconductor film on the 1st metal film, and a 2nd metal film on the insulation film or the semiconductor film. These 3 layers together (2 metal films and a semiconductor or insulation layer) forms a gas sensor which is used for reducing gases (e.g., SiH4, B2H6, Ash3, PH3) used in the fabrication of a semiconductor. The substrate is a 0.8-8 mm thick glass plate, quartz plate, alumina ceramic, Si crystal, Cu, Ni, Au, Pt, Ti, Ta, Mo, Nb, Al, Pd, or alloys. The 1st metal film is a few .mu. thick Au, Pt, Ti, Ta, Mo, Nb, Al, Pd, or alloys. The insulation layer or semiconductor layer is TiO2, SiO2, Al2O3, Si3N4, plasma polymn. film, or phthalocyanine. The 2nd metal layer can be either the same kind of metal layer as the 1st metal layer or a different kind of metal layer. If the substrate is a metal, the presence of the 1st metal film is unnecessary. A heater is attached on the substrate and is located near the gas sensor to ***heat*** the sensor. The heater is a thin layer resistor which is formed by vapor deposition of Pt, Ni-Cr alloy on the substrate, or is a thick-layer resistor which is formed by screen printing of Pt, Ni-Cr alloy on the substrate, or is a diffused resistor when the substrate is a Si crystal. The structure of this gas sensor is simple, and the heating efficiency of the gas sensor is improved with shortened response time.

ST gas sensor semiconductor precursor heater
 IT Gas analysis
 (app., planar-type with heating arrangement, for semiconductor precursor gases)
 IT Semiconductor materials
 (gas sensor for detn. of precursor gases in manuf. of)
 IT Heating systems and Heaters
 (in gas sensor for detn. of precursor gases in manuf. of semiconductors)
 IT Polymers, uses and miscellaneous
 RL: USES (Uses)
 (in gas sensors for semiconductor precursor gases)
 IT Aluminum alloy, nonbase
 Gold alloy, nonbase
 Molybdenum alloy, nonbase
 Niobium alloy, nonbase
 Palladium alloy, nonbase
 Platinum alloy, nonbase
 Tantalum alloy, nonbase
 Titanium alloy, nonbase
 RL: ANST (Analytical study)
 (in gas sensors for semiconductor precursor gases)
 IT 7784-42-1 7803-51-2 7803-62-5, Silane, analysis 13283-31-3, Borane, analysis
 RL: ANT (Analyte); ANST (Analytical study)
 (detn. of, planar-type gas sensor with heater for)
 IT 574-93-6, ***Phthalocyanine*** 1344-28-1, Aluminum oxide, uses and

miscellaneous 7429-90-5, Aluminum, uses and miscellaneous 7439-98-7,
Molybdenum, uses and miscellaneous 7440-03-1, Niobium, uses and
miscellaneous 7440-05-3, Palladium, uses and miscellaneous 7440-06-4,
Platinum, uses and miscellaneous 7440-25-7, Tantalum, uses and
miscellaneous 7440-32-6, Titanium, uses and miscellaneous 7440-57-5,
Gold, uses and miscellaneous 7631-86-9, Silica, uses and miscellaneous
12033-89-5, Silicon nitride (Si3N4), uses and miscellaneous 13463-67-7,
Titanium oxide (TiO2), uses and miscellaneous
RL: ANST (Analytical study)
(in gas sensors for semiconductor ***precursor*** gases)

L9 ANSWER 23 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1986:150936 CAPLUS
DN 104:150936
ED Entered STN: 03 May 1986
TI ***Heat*** -resistant varnishes for color filters
IN Miura, Yasuo; Hiramoto, Yoshi; Saito, Shoji
PA Toray Industries, Inc., Japan
SO Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF

DT Patent
LA Japanese
IC ICM G02B005-22
ICS C08G073-10; C08L079-08
CC 42-10 (Coatings, Inks, and Related Products)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 60184202	A2	19850919	JP 1984-38784	19840302
	JP 06090324	B4	19941114		
PRAI	JP 1984-38784		19840302		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 60184202	ICM	G02B005-22
	ICS	C08G073-10; C08L079-08
	IPCI	G02B0005-22 [ICM,4]; C08G0073-10 [ICS,4]; C08L0079-08 [ICS,4]
	IPCR	C08G0073-00 [I,C]; C08G0073-10 [I,A]

AB Varnishes contain solvents, 10-300 g org. pigments insol. in the solvents, and 100 g arom. polyimide precursors contg. SO2 groups and have high light transmittance and no turbidity. Thus, a varnish contained benzophenonetetracarboxylic dianhydride-3,3'-diaminodiphenyl sulfone copolymer and phthalocyanine blue.

ST ***heat*** resistance varnish color filter

IT Optical filters

(color, varnishes contg. pigments and polyimide precursors for, ***heat*** -resistant)

IT ***Heat*** -resistant materials

(coatings, contg. polyimides and pigments, for color filters)

IT Coating materials

(***heat*** -resistant, contg. polyimides and pigments, for color filters)

IT Coating materials

(***heat*** -resistant, varnishes, contg. polyimide ***precursors*** and ***phthalocyanine*** blue, for color filters)

IT 147-14-8

RL: USES (Uses)

(pigments, varnishes contg. polyimide precursors and, for color filters)

IT 28825-50-5 54571-77-6 87089-64-3

RL: USES (Uses)

(varnishes, ***heat*** -resistant, contg. pigments, for color filters)

L9 ANSWER 24 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1986:7205 CAPLUS

DN 104:7205

ED Entered STN: 11 Jan 1986

TI Polymeric ***phthalocyanines*** and their ***precursors*** , 8.
Synthesis and analytical characterization of polymers from

1,2,4,5-benzenetetracarboxylic acid
AU Woehrle, Dieter; Marose, Ulrich; Knoop, Renate
CS Org. Makromol. Chem., Univ. Bremen, Bremen, 2800/33, Fed. Rep. Ger.
SO Makromolekulare Chemie (1985), 186(11), 2209-28
CODEN: MACEAK; ISSN: 0025-116X
DT Journal
LA English
CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 37
AB Polymers were prep'd. by reaction of 1,2,4,5-benzenetetracarboxylic acid (I) or 2,3,9,10,16,17,23,24-(29H,31H)-phthalocyanineoctacarboxylic acid (II) with various metal salts or metals. The polymer structures were investigated by comparing their ***IR*** and UV/visible spectra with those of the corresponding octacyano- or octacarboxyphthalocyanine. Structurally uniform polymeric phthalocyanines with a no. of phthalocyanine units (d.p. .gtoreq.3) with carboxylic acid end groups were obtained. The reactions of I or II with other metal salts or metals yielded polymers of varying structural uniformity. Metal-free polymer was also synthesized.
ST pyromellitonitrile polymn metal; phthalocyanine polymer metal complex; nitrile phthalocyanine polymn
IT Polymerization
(cyclo-, of pyromellitonitrile or phthalocyanineoctacarboxylic acid, in presence of metal salts)
IT 7429-90-5DP, complexes with polymeric phthalocyanines 7439-89-6DP, complexes with polymeric phthalocyanines 7439-92-1DP, complexes with polymeric phthalocyanines 7439-95-4DP, complexes with polymeric phthalocyanines 7439-96-5DP, complexes with polymeric phthalocyanines 7440-02-0DP, complexes with polymeric phthalocyanine 7440-06-4DP, complexes with polymeric phthalocyanines 7440-47-3DP, complexes with polymeric phthalocyanines 7440-48-4DP, complexes with polymeric phthalocyanine 7440-50-8DP, complexes with polymeric phthalocyanine 7440-62-2DP, complexes with polymeric phthalocyanines 7440-66-6DP, complexes with polymeric phthalocyanines 28264-23-5DP, metal complexes 28264-23-5P 99492-98-5DP, metal complexes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (prepn. and spectra of)

ANSWER 25 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1986:7204 CAPLUS
DN 104:7204
ED Entered STN: 11 Jan 1986
TI Polymeric ***phthalocyanines*** and their ***precursors*** , 7. Synthesis and analytical characterization of polymers from 1,2,4,5-benzenetetracarboxylic acid derivatives
AU Woehrle, Dieter; Preussner, Elke
CS Org. Makromol. Chem., Univ. Bremen, Bremen, 2800/33, Fed. Rep. Ger.
SO Makromolekulare Chemie (1985), 186(11), 2189-207
CODEN: MACEAK; ISSN: 0025-116X
DT Journal
LA English
CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 37
AB Structurally uniform polymeric phthalocyanines contg. imido end groups were synthesized by reaction of different derivs. of 1,2,4,5-benzenetetracarboxylic acid with metal salts, urea, and a catalyst. The imide polymers were converted into polymers contg. anhydride, carboxylic acid, and amido end groups. ***IR*** and UV/visible spectroscopy were used as appropriate methods for describing end groups and structural uniformity. Octasubstituted phthalocyanines and not phthalocyanine itself must be considered as low-mol.-wt. analogs. The no. of phthalocyanine units in the polymers was .gtoreq.9.
ST phthalocyanine polymer; pyromellitic deriv urea copolymn
IT Polymerization
(cyclo-, of pyromellitic acid derivs. with urea in presence of metal salts, for prep'n. of polymeric phthalocyanines)
IT 574-93-6DP, derivs., polymers, metal complexes 7439-89-6DP, complexes with polymeric phthalocyanines 7440-02-0DP, complexes with polymeric phthalocyanines 7440-48-4DP, complexes with polymeric phthalocyanines 7440-50-8DP, complexes with polymeric phthalocyanines 89655-47-0DP, metal complexes 99473-37-7DP, metal complexes 99473-38-8DP, metal

complexes 99473-39-9DP, metal complexes
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and spectra of)

L9 ANSWER 26 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1986:7203 CAPLUS
DN 104:7203
ED Entered STN: 11 Jan 1986
TI Polymeric ***phthalocyanines*** and their ***precursors*** , 6.
Synthesis and analytical characterization of some octasubstituted
phthalocyanines
AU Woehrle, Dieter; Huendorf, Uwe
CS Org. Makromol. Chem., Univ. Bremen, Bremen, 2800/33, Fed. Rep. Ger.
SO Makromolekulare Chemie (1985), 186(11), 2177-87
CODEN: MACEAK; ISSN: 0025-116X
DT Journal
LA English
CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
Sensitizers)
AB Starting with 2,3,9,10,16,17,23,24-phthalocyanineoctacarbonitrile
[76221-26-6] different octasubstituted phthalocyanines with carboxylic
acid, anhydride, imido, and amido groups are prepd. ***IR*** and
UV/visible spectra are discussed in detail and compared with unsubstituted
phthalocyanine. The products may be considered as low mol. wt. analogs of
polymeric phthalocyanines with different end groups.
ST phthalocyanine octasubstituted
IT 147-14-8P 574-93-6P 41127-68-8P 58334-40-0P 71667-32-8P
74921-17-8P 75810-80-9P 99485-93-5P 99485-94-6P 99489-22-2P
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)
(prepn. and spectra of)
IT 76221-26-6
RL: RCT (Reactant); RACT (Reactant or reagent)
(spectra and hydrolysis of)

L9 ANSWER 27 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1975:499083 CAPLUS
DN 83:99083
ED Entered STN: 12 May 1984
TI Transfer printing process for hydrophilic fiber material
IN Defago, Raymond; Ramanathan, Visvanathan; Back, Gerhard
PA Ciba-Geigy A.-G., Switz.
SO Ger. Offen., 39 pp.
CODEN: GWXXBX
DT Patent
LA German
IC D06P; C09D
CC 39-7 (Textiles)
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2451879	A1	19750507	DE 1974-2451879	19741031
	CH 7315456	A4	19760315	CH 1973-15456	19731102
	CH 579675	B	19760915		
	US 4033716	A	19770705	US 1974-515104	19741015
	GB 1484027	A	19770824	GB 1974-44900	19741016
	FR 2249992	A1	19750530	FR 1974-35982	19741028
	JP 50071993	A2	19750614	JP 1974-124988	19741031
PRAI	CH 1973-15456	A	19731102		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 2451879	IC	D06P; C09D
	IPCI	D06P0007-00; D06P0003-68; D06P0003-58; D06P0001-26; D06P0001-00; C09D0011-02
	IPCR	C09B0045-00 [I,A]; C09B0045-00 [I,C]; D06P0001-00 [I,C]; D06P0001-36 [I,A]; D06P0001-44 [I,A]; D06P0001-44 [I,C]; D06P0005-24 [I,C]; D06P0005-28 [I,A]
CH 7315456	IPCI	D06P0005-00
	IPCR	C09B0045-00 [I,A]; C09B0045-00 [I,C]; D06P0001-00 [I,C]; D06P0001-36 [I,A]; D06P0001-44 [I,A]; D06P0001-44 [I,C]; D06P0005-24 [I,C]; D06P0005-28 [I,A]
US 4033716	IPCI	D06P0001-10; D06P0001-12; D06P0001-02

IPCR C09B0045-00 [I,A]; C09B0045-00 [I,C]; D06P0001-00
 [I,C]; D06P0001-36 [I,A]; D06P0001-44 [I,A];
 D06P0001-44 [I,C]; D06P0005-24 [I,C]; D06P0005-28 [I,A]
 NCL 008/415.000; 008/444.000; 008/496.000; 008/576.000;
 008/582.000; 008/584.000; 008/585.000; 008/586.000;
 008/587.000; 008/604.000; 008/611.000; 008/685.000;
 008/686.000; 008/688.000; 008/907.000; 008/918.000;
 008/930.000
 GB 1484027 IPCI D06P0001-36; D06P0001-00
 IPCR C09B0045-00 [I,A]; C09B0045-00 [I,C]; D06P0001-00
 [I,C]; D06P0001-36 [I,A]; D06P0001-44 [I,A];
 D06P0001-44 [I,C]; D06P0005-24 [I,C]; D06P0005-28 [I,A]
 FR 2249992 IPCI D06P0005-00; D06P0001-10; D06P0001-02; B41M0005-18;
 C09D0011-00
 IPCR C09B0045-00 [I,A]; C09B0045-00 [I,C]; D06P0001-00
 [I,C]; D06P0001-36 [I,A]; D06P0001-44 [I,A];
 D06P0001-44 [I,C]; D06P0005-24 [I,C]; D06P0005-28 [I,A]
 JP 50071993 IPCI D06P0005-00
 IPCR C09B0045-00 [I,A]; C09B0045-00 [I,C]; D06P0001-00
 [I,C]; D06P0001-36 [I,A]; D06P0001-44 [I,A];
 D06P0001-44 [I,C]; D06P0005-24 [I,C]; D06P0005-28 [I,A]
 AB Cotton fabric was transfer printed by impregnating it with a soln. of
 complex-forming metal compd. in an org. solvent having a b.p. >100.degree.
 and water soly. .gtoreq.25 g/l., drying, placing it in contact with
 transfer paper printed with ink comprising a transferable, metallizable
 dye or dye precursor and a ***heat*** -stable, nontransferable binder,
 and heating. For example, a sand-milled ink prepd. from
 2-[(2-hydroxy-5-methylphenyl)azo] benzothiazole 5, Et cellulose 10, EtOH
 42.5, and MeCOEt 42.5 parts was printed on transfer paper, placed in
 contact with cotton fabric which had been impregnated with (HOCH2CH2)2O
 200, Ni(OAc)2 10, and H2O 800 parts and dried, and ironed 30 sec at
 160.degree. to give a deep yellow print with good fastness to wet
 processing and abrasion.
 ST cotton fabric transfer printing; metal complex dye printing; azo dye.
 transfer printing; phthalogen dye transfer printing
 IT Dyes, azo
 (metallizable, in transfer printing on cotton)
 IT Textile printing
 (transfer, on cotton, with metallizable dyes or dye precursors)
 IT 574-93-6D, 29H,31H- ***Phthalocyanine*** , metal complexes
 RL: USES (Uses)
 (***precursors*** for, in transfer printing on cotton)

L9 ANSWER 28 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1972:427438 CAPLUS
 DN 77:27438
 ED Entered STN: 12 May 1984
 TI Light-sensitive material for dry-copying processes
 IN Kampfner, Helmut; Goetze, Johannes; Von Koenig, Anita; Oehlschlaeger, Hans
 PA Agfa-Gevaert A.-G.
 SO Ger. Offen., 53 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 IC G03C
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 2042054	A	19720302	DE 1970-2042054	19700825
	CA 989235	A1	19760518	CA 1971-119632	19710803
	BE 770971	A2	19720207	BE 1971-3297	19710805
	CH 581333	A	19761029	CH 1971-12129	19710818
	US 3816131	A	19740611	US 1971-174270	19710823
	FR 2103502	A5	19720414	FR 1971-30895	19710825
	FR 2103502	B1	19730629		
	GB 1353810	A	19740522	GB 1971-39920	19710825
PRAI	DE 1970-2042054	A	19700825		

CLASS
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

 DE 2042054 IC G03C

	IPCI	G03C	
	IPCR	C07D0215-00 [I,C]; C07D0215-14 [I,A]; C07D0239-00 [I,C]; C07D0239-60 [I,A]; C07D0263-00 [I,C]; C07D0263-46 [I,A]; C07D0263-56 [I,A]; C07D0271-00 [I,C]; C07D0271-06 [I,A]; C07D0277-00 [I,C]; C07D0277-10 [I,A]; C07D0277-64 [I,A]; C07D0293-00 [I,C]; C07D0293-12 [I,A]; C07D0333-00 [I,C]; C07D0333-64 [I,A]; C09B0023-00 [I,A]; C09B0023-00 [I,C]; C09B0023-01 [I,A]; C09B0023-04 [I,A]; C09B0023-06 [I,A]; C09B0023-08 [I,A]; C09B0023-10 [I,A]; C09B0023-14 [I,A]; G03C0001-73 [I,A]; G03C0001-73 [I,C]; G03C0005-56 [I,A]; G03C0005-56 [I,C]	
CA 989235	IPCR		
	IPCI	G03C	
BE 770971	IPCI	G03C0001-00; G03C0005-08	
CH 581333	IPCR	C07D0215-00 [I,C]; C07D0215-14 [I,A]; C07D0239-00 [I,C]; C07D0239-60 [I,A]; C07D0263-00 [I,C]; C07D0263-46 [I,A]; C07D0263-56 [I,A]; C07D0271-00 [I,C]; C07D0271-06 [I,A]; C07D0277-00 [I,C]; C07D0277-10 [I,A]; C07D0277-64 [I,A]; C07D0293-00 [I,C]; C07D0293-12 [I,A]; C07D0333-00 [I,C]; C07D0333-64 [I,A]; C09B0023-00 [I,A]; C09B0023-00 [I,C]; C09B0023-01 [I,A]; C09B0023-04 [I,A]; C09B0023-06 [I,A]; C09B0023-08 [I,A]; C09B0023-10 [I,A]; C09B0023-14 [I,A]; G03C0001-73 [I,A]; G03C0001-73 [I,C]; G03C0005-56 [I,A]; G03C0005-56 [I,C]	
	IPCR		
US 3816131	IPCR		
	NCL	430/203.000; 430/343.000; 430/344.000; 430/541.000	
FR 2103502	IPCI	G03C0005-00; G03C0007-00; G03C0001-00	
	IPCR	C07D0215-00 [I,C]; C07D0215-14 [I,A]; C07D0239-00 [I,C]; C07D0239-60 [I,A]; C07D0263-00 [I,C]; C07D0263-46 [I,A]; C07D0263-56 [I,A]; C07D0271-00 [I,C]; C07D0271-06 [I,A]; C07D0277-00 [I,C]; C07D0277-10 [I,A]; C07D0277-64 [I,A]; C07D0293-00 [I,C]; C07D0293-12 [I,A]; C07D0333-00 [I,C]; C07D0333-64 [I,A]; C09B0023-00 [I,A]; C09B0023-00 [I,C]; C09B0023-01 [I,A]; C09B0023-04 [I,A]; C09B0023-06 [I,A]; C09B0023-08 [I,A]; C09B0023-10 [I,A]; C09B0023-14 [I,A]; G03C0001-73 [I,A]; G03C0001-73 [I,C]; G03C0005-56 [I,A]; G03C0005-56 [I,C]	
	IPCI	G03C0001-72	
GB 1353810	IPCR	C07D0215-00 [I,C]; C07D0215-14 [I,A]; C07D0239-00 [I,C]; C07D0239-60 [I,A]; C07D0263-00 [I,C]; C07D0263-46 [I,A]; C07D0263-56 [I,A]; C07D0271-00 [I,C]; C07D0271-06 [I,A]; C07D0277-00 [I,C]; C07D0277-10 [I,A]; C07D0277-64 [I,A]; C07D0293-00 [I,C]; C07D0293-12 [I,A]; C07D0333-00 [I,C]; C07D0333-64 [I,A]; C09B0023-00 [I,A]; C09B0023-00 [I,C]; C09B0023-01 [I,A]; C09B0023-04 [I,A]; C09B0023-06 [I,A]; C09B0023-08 [I,A]; C09B0023-10 [I,A]; C09B0023-14 [I,A]; G03C0001-73 [I,A]; G03C0001-73 [I,C]; G03C0005-56 [I,A]; G03C0005-56 [I,C]	

AB A layer contg. in a film-forming binder 10 300 mg/m2 of a sensitizer and 20 500 mg of an image former volatile at 80 200.degree. (a phenol, naphthol, N,N-dialkyl-p-phenylenediamine, 3-pyrazolidinone, 5-pyrazoline compd., or 1,2,3,4-tetrahydro-8-hydroxyquinoline) is exposed and then contacted at 80-200.degree. with a receptor material contg. a heavy metal salt, oxidant, diazonium salt, or ***leucophthalocyanine*** to react with the image former which has been transferred in the unexposed areas to form a dark copy. The sensitizer is a heterocyclic dye with 1, 2, or 3 = CH- groups and .gtoreq.1 halogen atoms as C-substituent. Such a dye is the condensation product of 1,3-diethylthiobarbituric acid with 3,5-diiodo-4-hydroxybenzaldehyde. As light-sensitive layer 30 mg of the condensation product was coated with Et cellulose 2.5 g and 1-hydroxy-4-methoxynaphthalene 50 mg as EtOAc soln. on a paper support. After exposure to a 1000-W W lamp, 5-10 cm distant, through paper with a printed text for 15-25 sec, the light-sensitive layer was contacted in a thermocopier with paper carrying a receptor coating contg. Ag behenate, 1-(2H)-phthalazinone (toner), 2,6-di-tert-butyl-4-methylphenol, ZnO (pigment), SiO2, and tetrachlorophthalic anhydride in a mixt. of binders, to form a black pos. copy.

ST dry photocopying; copying photo dry; heterocycle sensitizer photocopying
IT Photoduplication
(light-sensitive compns. for, for ***heat*** -transferable images)

IT Terpenes

RL: USES (Uses)

(polymers, image receiving layers contg., for photocopying process)

IT 89-25-8 119-39-1 2489-05-6 21906-90-1 24564-52-1

RL: USES (Uses)

(image receiving layers contg., for photocopying process)

IT 16423-68-0 18426-60-3 38394-59-1 38394-60-4 38517-57-6
38517-58-7 38517-59-8 38517-60-1 38517-61-2 38517-62-3
38517-64-5 38517-65-6 38517-66-7 38517-67-8 38517-68-9
38517-69-0 38517-70-3 38517-71-4 38517-72-5 38517-73-6
38517-74-7 38517-75-8 38517-76-9 38517-77-0 38517-78-1
38517-79-2 38517-80-5 38517-81-6 38517-82-7 38517-83-8
38517-84-9 38517-85-0 38517-86-1 38517-87-2 38517-88-3
38517-89-4 38517-90-7 38517-91-8 38517-92-9 38517-93-0
38536-83-3 38536-85-5 40726-10-1 41503-47-3

RL: USES (Uses)

(light-sensitive compns. contg. aromatic amines and, for photocopying process)

IT 84-85-5 92-43-3 6112-47-6 6640-50-2 13102-34-6 16181-60-5
17900-68-4 32387-68-1 36210-80-7 38536-86-6

RL: USES (Uses)

(light-sensitive compns. contg. heterocyclic dyes and, for photocopying process)

L9 ANSWER 29 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1968:115642 CAPLUS

DN 68:115642

ED Entered STN: 12 May 1984

TI Dyeing with mixtures of metallized dyes

PA Farbenfabriken Bayer A.-G.

SO Fr., 5 pp.

CODEN: FRXXAK

DT Patent

LA French

IC C09B; D06J

CC 39 (Textiles)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 1489090		19670721	FR 1966-60655	19660506
	DE 1469725			DE	
	GB 1124918			GB	

PRAI DE 19650508

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
FR 1489090	IC	C09B; D06J
	IPCI	C09B; D06J
	IPCR	D06P0001-00 [I,C]; D06P0001-02 [I,C]; D06P0001-12 [I,A]; D06P0001-14 [I,A]; D06P0003-58 [I,C];

AB Fabrics are dyed in bright light-fast shades by treating them with a printing paste made from: (1) a ***phthalocyanine*** ***precursor***, such as 1-amino-3-imino-5-methoxyisoindolenine or 1-amino-3-iminoisoindolenine (I) and an equiv. amt. of a metal salt, such as Ni or Cu hydroxyethylaminoacetate (II); and (2) a coupling compd. together with an equiv. amt. of a dry stabilized diazoamino compound that decomn. on heating to give a diazo compd. having an alkoxy group ortho to the azo group. The printed fabric is then exposed to ***heat*** to develop the color. Thus, a paste is made from I 27, II 7, and 3 parts of an equiv. amt. of 2,3-HOC10H6CONHC6H4(OMe)Cl-2,5 and a diazoamino compd. prepd. from 1-amino-2-methoxybenzene-5-carboxyanilide and 2-ethylamino-5-sulfobenzoic acid, 30 parts MeOH, 30 parts emulsifier, and 80 parts hydroxyethylthiourea. This paste is dild. with a soln. of 30 parts of urea in 300 parts H2O contg. 20 parts 25% NH4OH and the paste is adjusted to 1000 parts with 20 parts of leveling agent and H2O. The paste is printed onto the fiber on a 2-roll mill and then the fiber is heated at 140.degree. for 5 min. The fiber is washed and rinsed to give a blue-red dyeing.

ST METALLIZED DYES DYEING; DYEING WITH METALLIZED DYES

IT Textile printing

(with ***phthalocyanine*** ***precursor*** pastes with metal salts and stabilized diazo-coupling compd. mixts.)

IT Dyeing

(with ***phthalocyanine*** ***precursors*** and metal salts and stabilized diazo-coupling compd. mixts.)

L9 ANSWER 30 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1965:1073 CAPLUS

DN 62:1073

OREF 62:166f-h

ED Entered STN: 22 Apr 2001

TI Positives by thermal tanning development

IN Koenig, Anita v.; Wolf, Walther; Maeder, Helmut

PA Agfa A.-G.

SO 7 pp.

DT Patent

LA Unavailable

IC G03C

CC 11 (Radiation Chemistry and Photochemistry)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 1178705		19640924	DE 1963-A42394	19630222
	BE 644162			BE	

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 1178705	IC	G03C
	IPCI	G03C
	IPCR	G03C0005-315 [I,A]; G03C0005-315 [I,C]

AB The title process (CA 54, 10614g) utilizes a ***leucophthalocyanine*** (I) in the neg.layer and agents that reduce the I to a Pc [= phthalocyanine] dye, which is incorporated into the final Ag image in the transfer sheet. The I is a Pc contg. addnl. amino ligands (CA 50, 13051g). Thus, to 1 l. of a ripened Ag halide emulsion were added benzotriazole 0.05, 4-hydroxy-6-methyl-1,2,3a,7-tetraazaindene 0.2, NaOAc 150, terephthalaldehyde bisulfite 10, catechol 30, colloidal SiO2 3 g., 30% saponin 5 cc., and a soln. of 2 g. leuco-CoPc (II) and 20 cc. polyethylene glycol (mol. wt. 400) in 20 cc. 10% HOAc. The mixt. was coated to give the neg. layer. The pos. transfer sheet was a substrate coated with a soln. of 1-phenyl-3-pyrazolidinone 5, BzNHNH2 1, and cyclohexanone bisulfite 5 g. in 200 cc. 5% aq. Moviol 30/98 [poly(vinyl alc.)]. A mixt. of 20 g. of the leuco-CoPc obtained according to example 1, Ger. 855,710, 20 g. N,N-bis(2-aminoethyl) ethylenediamine, and 50 ml. MeOH was refluxed for 30 min. to give 20 g. II, bright yellow.

IT Photography

(transfer process, developed by ***heat*** and tanning developer)

IT 3468-11-9, 1H-Isoindole, 3-amino-1-imino-

(derivs., as ***phthalocyanine*** ***precursor*** in photographic emulsions)

IT 92-43-3, 3-Pyrazolidinone, 1-phenyl- 302-01-2, Hydrazine 10216-17-8,

Crotonic acid, 2,3,4-trihydroxy-, .gamma.-lactone
 (derivs., in photographic transfer process for thermal tanning
 development)
 IT 574-93-6, Phthalocyanine
 (effect on formic acid decompn., formation in situ in thermal
 photography)
 IT 3317-67-7, Cobalt, [phthalocyaninato(2-)]-
 (formation in situ in thermal photography)
 IT 39454-90-5, ***Leucophthalocyanine***
 (in photographic emulsions)
 IT 3886-55-3, s-Triazolo[4,3-a]pyrimidin-5-ol, 7-methyl-
 (in photographic transfer process for thermal tanning development)

L9 ANSWER 31 OF 31 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1956:67167 CAPLUS
 DN 50:67167
 OREF 50:12491d-g
 ED Entered STN: 22 Apr 2001
 TI Improved phthalocyanine dyes
 IN Barnhart, Geo.; Skiles, Benjamin F.; Stevenson, Arthur C.
 PA E. I. du Pont de Nemours & Co.
 DT Patent
 LA Unavailable
 CC 25 (Dyes and Textiles Chemistry)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
GB 745359		19560222	GB 1952-26210	19521020

CLASS
 PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES
 GB 745359 IPCR C09B0047-04 [I,A]; C09B0047-04 [I,C]
 AB Solvent-sol., relatively ***colorless*** ***leuco***
 phthalocyanine compds. which yield insol. ***phthalocyanine***
 pigments on heating or by treating with reducing agents are prepd. by
 treating a phthalonitrile, anhyd. NH3, and an anhyd. Cu or Ni salt in the
 presence of a H2O-sol. org. solvent and a catalyst at a temp. <90.degree..
 The compds. have the empirical formula M(C8H4N2)6NH where M = Cu or Ni.
 Suitable solvents are MeOH, EtOH, Cellosolves, dimethylformamide etc.;
 suitable catalysts are urea, biuret, guanidine, methylglucamine,
 piperidine, or triethanolamine. The molar ratio of metal
 salt:phthalonitrile is 1:6-2:6. Thus, a mixt. of anhyd. CuCl2 61.4 parts
 and glycol monoethyl ether 400 are treated with NH3 gas at a temp.
 <30.degree. until ***heat*** is no longer liber-ated. After stirring
 in an atm. of NH3 for 1 hr., phthalonitrile 200 and methylglucamine 12 are
 added and the mixt. stirred at 70.degree. for 20 hrs., then filtered hot.
 The residue is washed with hot glycol monoethyl ether and the
 leuco Cu ***phthalocyanine*** is pptd. from the combined
 filtrate and washings by adding H2O 6000. The product is filtered off and
 dried without heating. Feeding an air stream into the reaction mixt. at a
 rate sufficient to give 0.5 mole of O per mole of metallic salt may
 improve the yield. The leuco dyes can be incorporated into printing
 pastes or applied to cotton as a soln. in various org. solvents. Color
 development results in deep shades extremely fast to light and crocking
 and to washing in the presence of bleaching agents.
 IT Dyes
 (azoic or ice-color, 2-(4-amino-2,5-dialkoxyanilino)benzothiazole(or
 benzoxazole), blue-green)
 IT 7440-02-0, Nickel 7440-50-8, Copper
 (compds., with ***phthalocyanine*** ***leuco*** derivs.)
 IT 574-93-6, ***Phthalocyanine***
 (metal derivs., of ***leuco*** deriv.)

=> s (diiminoisindol? or sarcosine or hydroxyethylsarcosine) and l8
 669 DIIMINOISINDOL?
 6173 SARCOSINE
 72 SARCOSINES
 6188 SARCOSINE
 (SARCOSINE OR SARCOSINES)
 3 HYDROXYETHYLSARCOSINE
 L10 15 (DIIMINOISINDOL? OR SARCOSINE OR HYDROXYETHYLSARCOSINE) AND L8

=> d all 1-15

L10 * ANSWER 1 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2006:35265 CAPLUS

DN 144:117783

ED Entered STN: 13 Jan 2006

TI Manufacture of metallophthalocyanines as electrophotographic photoreceptors for cartridges for electrophotographic apparatus

IN Wada, Mitsuo; Ida, Kazutaka

PA Mitsubishi Chemical Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 78

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006008612	A2	20060112	JP 2004-189224	20040628
PRAI	JP 2004-189224		20040628		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2006008612	IPCI	C07D0487-22 [I,A]; C09B0047-067 [I,A]; C09B0047-073 [I,A]; G03G0005-06 [I,A]
	FTERM	2H068/AA19; 2H068/BA39; 2H068/FA27; 4C050/PA14; 4C050/PA15

AB The metallophthalocyanines are manufd. by treatment of trivalent metal salts with compds. capable of forming phthalocyanine rings, e.g., phthalonitriles and/or 1,3- ***diiminoisindolines***, in nitro compds. Electrophotog. photoreceptors using the metallophthalocyanines as charge generating agents show good initial charging property and low dark decay.

ST metallophthalocyanine charge generating electrophotog photoreceptor manuf; phthalonitrile trivalent metal salt cyclocondensation nitro solvent; ***diiminoisindoline*** trivalent metal salt cyclocondensation nitro solvent

IT Cyclocondensation reaction

Electrophotographic photoconductors (photoreceptors)
(manuf. of metallophthalocyanines as electrophotog. photoreceptors for by cyclocondensation of ***phthalocyanine*** ***precursors*** in the presence of trivalent metal salts in nitro compds.)

IT Metallophthalocyanines

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(manuf. of metallophthalocyanines as electrophotog. photoreceptors for by cyclocondensation of ***phthalocyanine*** ***precursors*** in the presence of trivalent metal salts in nitro compds.)

IT Nitro compounds

RL: NUU (Other use, unclassified); USES (Uses)
(solvents; manuf. of metallophthalocyanines as electrophotog. photoreceptors for by cyclocondensation of ***phthalocyanine*** ***precursors*** in the presence of trivalent metal salts in nitro compds.)

IT 321391-40-6P

RL: DEV (Device component use); IMF (Industrial manufacture); PREP (Preparation); USES (Uses)

(manuf. of metallophthalocyanines as electrophotog. photoreceptors for by cyclocondensation of ***phthalocyanine*** ***precursors*** in the presence of trivalent metal salts in nitro compds.)

IT 13450-90-3, Gallium trichloride 65610-14-2, 4-Fluorophthalonitrile 164581-64-0

RL: RCT (Reactant); RACT (Reactant or reagent)

(manuf. of metallophthalocyanines as electrophotog. photoreceptors for by cyclocondensation of ***phthalocyanine*** ***precursors*** in the presence of trivalent metal salts in nitro compds.)

IT 88-72-2, o-Nitrotoluene 91-23-6, o-Nitroanisole 98-95-3, Nitrobenzene, uses

RL: NUU (Other use, unclassified); USES (Uses)

(solvent; manuf. of metallophthalocyanines as electrophotog.

photoreceptors for by cyclocondensation of ***phthalocyanine***
 precursors in the presence of trivalent metal salts in nitro
 compds.)

L10 ANSWER 2 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2005:692321 CAPLUS

DN 143:163044

ED Entered STN: 04 Aug 2005

TI Method for acid pasting of pigments controlling diameter and crystal form
 uniformly, charge-generating materials therefrom, and electrophotographic
 photoreceptors therewith

IN Miyamoto, Hiroshi; Takagi, Seiichi; Hongo, Kazuya; Sato, Tadahisa;
 Ichikawa, Yasunori

PA Fuji Xerox Co., Ltd., Japan; Fuji Photo Film Co., Ltd.

SO Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B067-14

ICS B01D009-02; C09B067-16; G03G005-00; G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
 Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2005206666	A2	20050804	JP 2004-13460	20040121
PRAI	JP 2004-13460		20040121		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2005206666	ICM	C09B067-14
	ICS	B01D009-02; C09B067-16; G03G005-00; G03G005-06
	IPCI	C09B0067-14 [ICM,7]; B01D0009-02 [ICS,7]; C09B0067-16 [ICS,7]; G03G0005-00 [ICS,7]; G03G0005-06 [ICS,7]
	IPCR	B01D0009-00 [I,C]; B01D0009-02 [I,A]; C09B0067-00 [I,C]; C09B0067-14 [I,A]; C09B0067-16 [I,A]; G03G0005-00 [I,A]; G03G0005-00 [I,C]; G03G0005-06 [I,A]; G03G0005-06 [I,C]
	FTERM	2H068/AA19; 2H068/BA39; 2H068/EA04; 2H068/EA05; 2H068/EA12

AB In the process, for recrystn. of pigments, laminar flow is generated
 (e.g., in microreactors) by the 1st fluids contg. alk. solns., the 2nd
 fluids contg. pigments and acids dissolving them, and the 3rd fluids
 wherein the pigments can be pptd. Also claimed are charge-generating
 materials comprising the pigments treated as above. In electrophotog.
 photoreceptors, photosensitive layers contg. the materials are disposed on
 surfaces of conductive substrates.

ST electrophotog photoreceptor charge generator pigment acid pasting;
 hydroxygallium phthalocyanine pigment acid pasting recrystn;
 titanylphthalocyanine pigment acid pasting laminar flow

IT Flow
 (laminar; method for acid pasting of pigments controlling diam. and
 crystal form uniformly for electrophotog. photoreceptor
 charge-generating materials)

IT Electrophotographic photoconductors (photoreceptors)
 Pigments, nonbiological
 Recrystallization
 (method for acid pasting of pigments controlling diam. and crystal form
 uniformly for electrophotog. photoreceptor charge-generating materials)

IT Acids, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for acid pasting of pigments controlling diam. and crystal form
 uniformly for electrophotog. photoreceptor charge-generating materials)

IT 1336-21-6, Ammonium hydroxide
 RL: NUU (Other use, unclassified); USES (Uses)
 (in prepn. of pigments; method for acid pasting of pigments controlling
 diam. and crystal form uniformly for electrophotog. photoreceptor
 charge-generating materials)

IT 3468-11-9, 1,3- ***Diiminoisindoline*** 5593-70-4, Titanium
 tetrabutoxide 13450-90-3, Gallium trichloride
 RL: RCT (Reactant); RACT (Reactant or reagent)

(in prepn. of pigments; method for acid pasting of pigments controlling diam. and crystal form uniformly for electrophotog. photoreceptor charge-generating materials)

IT 7664-93-9, Sulfuric acid, uses
 RL: NUU (Other use, unclassified); USES (Uses)
 (method for acid pasting of pigments controlling diam. and crystal form uniformly for electrophotog. photoreceptor charge-generating materials)

IT 19717-79-4P, Chlorogallium ***phthalocyanine***
 RL: CPS (Chemical process); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (pigment ***precursors***; method for acid pasting of pigments controlling diam. and crystal form uniformly for electrophotog. photoreceptor charge-generating materials)

IT 26201-32-1P, Titanylphthalocyanine 63371-84-6P, Hydroxygallium phthalocyanine
 RL: DEV (Device component use); IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)
 (pigments; method for acid pasting of pigments controlling diam. and crystal form uniformly for electrophotog. photoreceptor charge-generating materials)

L10 ANSWER 3 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 2003:525526 CAPLUS

DN 139:92698

ED Entered STN: 10 Jul 2003

TI Gallium phthalocyanine, its chloride crystals, its hydroxide crystals, their manufacture, and electrophotographic photoconductor, process cartridge, and apparatus using them

IN Azuma, Takashi; Tanaka, Masato; Hirano, Hidetoshi; Fujii, Atsushi

PA Canon Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B047-067

ICS C07D487-22; C09B067-04; C09B067-50; G03G005-06; C07F005-00

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2003192933	A2	20030709	JP 2001-391838	20011225
	JP 3720763	B2	20051130		
PRAI	JP 2001-391838		20011225		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 2003192933	ICM	C09B047-067
	ICS	C07D487-22; C09B067-04; C09B067-50; G03G005-06; C07F005-00
	IPCI	C09B0047-067 [ICM,7]; C07D0487-22 [ICS,7]; C09B0067-04 [ICS,7]; C09B0067-50 [ICS,7]; G03G0005-06 [ICS,7]; C07F0005-00 [ICS,7]; C09B0067-16 [ICS,7]
	IPCR	C07D0487-00 [I,C]; C07D0487-22 [I,A]; C07F0005-00 [N,A]; C07F0005-00 [N,C]; C09B0047-04 [I,C]; C09B0047-067 [I,A]; C09B0067-00 [I,C]; C09B0067-04 [I,A]; C09B0067-50 [I,A]; G03G0005-06 [I,A]; G03G0005-06 [I,C]

AB The manufg. method contains (A) prepg. mixts. of org. solvents and ***phthalocyanine*** with water content .ltoreq.0.006% and (B) adding Ga compds. to the mixts. for reacting with the precursors. The crystals are manufd. by milling for crystal modification. The electrophotog. app. using the phthalocyanines shows suppressed pos. ghosts on printed images.

ST gallium phthalocyanine crystal manuf electrophotog photoconductor; drying ***precursor*** gallium ***phthalocyanine*** manuf electrophotog; milling chlorogallium phthalocyanine crystal modification electrophotog

IT Electrophotographic apparatus

Electrophotographic photoconductors (photoreceptors)
 (manuf. of Ga ***phthalocyanine*** derivs. from dried
 precursors for electrophotog. photoconductors with suppressed
 pos. ghosts)

IT Milling (size reduction)
 (of phthalocyanine crystals; manuf. of Ga ***phthalocyanine***
 derivs. from dried ***precursors*** for electrophotog.
 photoconductors with suppressed pos. ghosts)

IT Drying
 (of ***phthalocyanine*** ***precursors*** ; manuf. of Ga
 phthalocyanine derivs. from dried ***precursors*** for
 electrophotog. photoconductors with suppressed pos. ghosts)

IT 90-13-1, .alpha.-Chloronaphthalene
 RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical
 process); PYP (Physical process); PROC (Process); USES (Uses)
 (dried, dispersing phthalonitrile in; manuf. of Ga
 phthalocyanine derivs. from dried ***precursors*** for
 electrophotog. photoconductors with suppressed pos. ghosts)

IT 91-15-6, Phthalonitrile 3468-11-9, 1,3- ***Diiminoisoindoline***
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); RCT (Reactant); PROC (Process); RACT (Reactant or reagent)
 (dried; manuf. of Ga ***phthalocyanine*** derivs. from dried
 precursors for electrophotog. photoconductors with suppressed
 pos. ghosts)

IT 63371-84-6P, Hydroxygallium phthalocyanine
 RL: DEV (Device component use); IMF (Industrial manufacture); PEP
 (Physical, engineering or chemical process); PYP (Physical process); PREP
 (Preparation); PROC (Process); USES (Uses)
 (milled; manuf. of Ga ***phthalocyanine*** derivs. from dried
 precursors for electrophotog. photoconductors with suppressed
 pos. ghosts)

IT 19717-79-4P, Chlorogallium phthalocyanine
 RL: DEV (Device component use); IMF (Industrial manufacture); PEP
 (Physical, engineering or chemical process); PYP (Physical process); RCT
 (Reactant); PREP (Preparation); PROC (Process); RACT (Reactant or
 reagent); USES (Uses)
 (milled; manuf. of Ga ***phthalocyanine*** derivs. from dried
 precursors for electrophotog. photoconductors with suppressed
 pos. ghosts)

IT 14285-65-5, Gallium phthalocyanine
 RL: DEV (Device component use); PEP (Physical, engineering or chemical
 process); PYP (Physical process); PROC (Process); USES (Uses)
 (milled; manuf. of Ga ***phthalocyanine*** derivs. from dried
 precursors for electrophotog. photoconductors with suppressed
 pos. ghosts)

L10 ANSWER 4 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 2000:71857 CAPLUS
 DN 132:237474
 ED Entered STN: 30 Jan 2000
 TI Synthesis of ladder-type oligomers incorporating phthalocyanine units
 AU Hanack, Michael; Stihler, Patrick
 CS Institut fur Organische Chemie der Universitat Tuingen, Tuingen,
 D-72076, Germany
 SO European Journal of Organic Chemistry (2000), (2), 303-311
 CODEN: EJOCFK; ISSN: 1434-193X
 PB Wiley-VCH Verlag GmbH
 DT Journal
 LA English
 CC 35-7 (Chemistry of Synthetic High Polymers)
 AB The condensation of substituted ***diiminoisoindolines*** with
 alkyl-substituted 1,3,3-trichloroisoindolines results in the formation of
 the highly sol. metal-free phthalocyanines. By the same methodol.,
 metal-contg. phthalocyanines are accessible from suitable metal salts.
 The ***precursors*** were obtained from the ***phthalocyanine***
 deriv. and tetracyclone. The generation of the phthalocyanines possessing
 isobenzofuran moieties as diene subunits was accomplished; in the presence
 of excess dinitrile deriv., the tetracyclone-bisadducts were transformed
 into the phthalocyanine-dinitrile adduct model compds., while an excess of
 bisdienophilic phthalocyanines leads to the appropriate trimer oligomers.
 ST ladder oligomer phthalocyanine unit prepn; ***diiminoisoindoline***
 condensation trichloroisoindoline

IT Ladder polymers
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of ladder-type oligomers incorporating phthalocyanine units)

IT 191683-23-5P 206770-05-0P 262300-20-9P 262300-21-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and characterization of)

IT 261907-66-8P 261907-70-4P 262299-68-3P 262299-69-4P 262300-15-2P
 262300-16-3P 262300-17-4P 262300-18-5P 262300-22-1P 262300-23-2P
 262300-24-3P 262300-25-4P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. and characterization of)

IT 261907-67-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and hydrogenation of)

IT 261907-69-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with ***diiminoisoindoline***)

IT 247045-28-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with hexyne)

IT 261907-65-7P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with nitrotrichloroisoindolenine)

IT 261907-68-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and reaction with phosphorus pentachloride)

IT 119931-43-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with ammonia)

IT 479-33-4, Tetracyclone
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with bisdienophilic phthalocyanines)

IT 57-13-6, Urea, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with dibromophthalic anhydride)

IT 693-02-7, 1-Hexyne
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with dibromophthalimide)

IT 149901-79-1
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with diheptyldiiminoisoindoline)

IT 7664-41-7, Ammonia, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with dinitrile deriv.)

IT 50727-07-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with phosphorus pentachloride)

IT 175599-58-3
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with phthalocyanine-tetracyclone adducts)

IT 216021-54-4
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with tert-butyltrichloroisoindolenine)

IT 65237-17-4, 4,5-Dibromophthalic anhydride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with urea)

IT 10026-13-8, Phosphorus pentachloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction with with tert-butylphthalimide)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

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- (30) Stihler, P; Chem Ber/Recueil 1997, V130, P801 CAPLUS
- (31) Wegener, S; Macromolecules 1993, V26, P3037 CAPLUS
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L10 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1997:618943 CAPLUS
DN 127:270461
ED Entered STN: 27 Sep 1997
TI Hydroxygallium phthalocyanine crystal, its manufacture, and
electrophotographic photoconductor using it
IN Takimoto, Hitoshi; Hongo, Kazuya
PA Fuji Xerox Co., Ltd., Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
IC ICM C09B067-50
ICS C09B067-04; C09B067-20; G03G005-06
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 09241525	A2	19970916	JP 1996-52823	19960311
PRAI	JP 1996-52823		19960311		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
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JP 09241525	ICM	C09B067-50
	ICS	C09B067-04; C09B067-20; G03G005-06
	IPCI	C09B0067-50 [ICM,6]; C09B0067-04 [ICS,6]; C09B0067-20 [ICS,6]; G03G0005-06 [ICS,6]

AB The hydroxygallium phthalocyanine contg. .ltoreq.3000 ppm phthalimide has strong diffraction peaks (D) at Bragg angle (2.theta. .+-. 0.2.degree.) 7.5, 9.9, 12.5, 16.3, 18.6, 25.1, and 28.3.degree. (Cu-K.alpha. characteristic X ray). The crystal is prepd. by acid-pasting a hydroxygallium ***phthalocyanine*** ***precursor*** to give a crystal having D at 7.1, 16.8, and 26.6.degree., wet crushing, and (a) washing by a basic aq. soln. or (b) heating at 50-250.degree.. Alternatively, the precursor crystal after acid pasting is (c) washed by a basic aq. soln. or heated at 50-250.degree. and (d) wet crushed. An electrophotog. photoconductor having the crystal in the photosensitive layer is also claimed, which has high sensitivity assocd. with low dark decay.

ST hydroxygallium phthalocyanine crystal electrophotog photoconductor; wet crushing crystal conversion hydroxygallium phthalocyanine; sensitivity low dark decay electrophotog photoconductor; phthalimide content reduced

hydroxygallium phthalocyanine
 IT Electrophotographic photoconductors (photoreceptors)
 (manuf. of hydroxygallium phthalocyanine crystal for charge-generating
 agent in electrophotog. photoconductor)
 IT 63371-84-6P, Hydroxygallium phthalocyanine
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)
 (manuf. of hydroxygallium phthalocyanine crystal for charge-generating
 agent in electrophotog. photoconductor)
 IT 19717-79-4P, Chlorogallium phthalocyanine
 RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT
 (Reactant or reagent)
 (manuf. of hydroxygallium phthalocyanine crystal for charge-generating
 agent in electrophotog. photoconductor from)
 IT 91-15-6, 1,2-Benzenedicarbonitrile 2746-72-7, Gallium trimethoxide
 3468-11-9, 1,3- ***Diiminoisoindoline*** 13450-90-3, Gallium
 trichloride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (manuf. of hydroxygallium phthalocyanine crystal for charge-generating
 agent in electrophotog. photoconductor from)
 IT 85-41-6, Phthalimide
 RL: REM (Removal or disposal); PROC (Process)
 (removal of; manuf. of hydroxygallium phthalocyanine crystal for
 charge-generating agent in electrophotog. photoconductor)

L10 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1997:35361 CAPLUS

DN 126:90713

ED Entered STN: 17 Jan 1997

TI Infrared printout systems based on ***phthalocyanine***
 precursors

AU Anon.

CS UK

SO Research Disclosure (1996), 392, P773 (No. 39219)

CODEN: RSDSBB; ISSN: 0374-4353

PB Kenneth Mason Publications Ltd.

DT Journal; Patent

LA English

CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic
 Sensitizers)

Section cross-reference(s): 74

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 392019		19961210		

PI RD 392019 19961210

PRAI RD 1996-392019 19961210

OS MARPAT 126:90713

AB Colored phthalocyanines are formed from a thermal imaging medium with
 near-IR radiation by including in the medium (a) a 1,3-
 diiminoisoindoline and/or a related ***phthalocyanine***
 precursor, (b) a thermally cleavable adduct capable of generating
 a phenolic compd. with reducing properties, and (c) a near-IR absorbing
 dye (photosensitizer).

ST thermal imaging compn ***phthalocyanine*** ***precursor***; near
 IR printout system

IT Imaging
 (thermal; near-IR printout systems based on ***phthalocyanine***
 precursors)

IT 574-93-6DP, Phthalocyanine, derivs.
 RL: PNU (Preparation, unclassified); TEM (Technical or engineered material
 use); PREP (Preparation); USES (Uses)

(near-IR printout systems based on ***phthalocyanine***
 precursors)

IT 3468-11-9D, 1,3- ***Diiminoisoindoline***, derivs.

RL: RCT (Reactant); RACT (Reactant or reagent)
 (near-IR printout systems based on ***phthalocyanine***
 precursors)

IT 185634-24-6D, alkyl derivs.

RL: NUU (Other use, unclassified); USES (Uses)
 (photosensitizer; near-IR printout systems based on
 phthalocyanine ***precursors***)

L10 ANSWER 7 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:315188 CAPLUS
 DN 124:343109
 ED Entered STN: 30 May 1996
 TI Method for producing 1,3- ***diiminoisoindoline*** derivatives
 IN Matsumoto, Mansuke; Sasaki, Nobuaki; Sawano, Bunji
 PA Mitsui Toatsu Chemicals, Japan; Yamamoto Chemicals Inc
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07D209-44
 CC 27-11 (Heterocyclic Compounds (One Hetero Atom))
 Section cross-reference(s): 26, 74

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08041024	A2	19960213	JP 1994-177142	19940728
PRAI	JP 1994-177142		19940728		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 08041024	ICM	C07D209-44
	IPCI	C07D0209-44 [ICM,6]

OS MARPAT 124:343109

GI

/ Structure 7 in file .gra /

AB The title compds. (I; R = C1-10 alkyl, alkoxy, or alkylthio, OH; n = 0-4), useful as coloring components for thermal recording materials or ***precursors*** for ***phthalocyanines***, are prepd. by suspending the nitrate salt I.HNO₃ (R, n = same as above) in an alc., blowing NH₃ into the suspension to form a homogeneous soln., adding an equiv. amt. of KOH, removing the NH₃ dissolved in the alc. soln. and filtering off the pptd. KNO₃, and removing the alc. from the filtrate. This process nearly quant. gives I. Thus, 10.4 g I.HNO₃ (R = H) was suspended in 200 mL EtOH, into which NH₃(g) 750 mL/min was blown for 30 min to give a light yellow soln. After adding 2.8 g KOH to the soln., N was blown into the soln. to drive out NH₃ and pptd. KNO₃ was filtered off. The EtOH was removed by evapn. to give 100% I (R = H) as a light yellow solid.

ST ***diiminoisoindoline*** nitrate neutralization; coloring component thermal recording material ***diiminoisoindoline*** ;
 phthalocyanine ***precursor*** ***diiminoisoindoline***

IT Recording materials
 (thermal, prepn. of 1,3- ***diiminoisoindoline*** derivs. as coloring components for thermal recording materials and ***precursors*** of ***phthalocyanines***)

IT 574-93-6DP, Phthalocyanine, derivs.
 RL: PNU (Preparation, unclassified); PREP (Preparation)
 (prepn. of 1,3- ***diiminoisoindoline*** derivs. as coloring components for thermal recording materials and ***precursors*** of ***phthalocyanines***)

IT 1310-58-3, Potassium hydroxide, reactions 7664-41-7, Ammonia, reactions 23395-08-6, 1,3- ***Diiminoisoindoline*** nitrate 176788-93-5, 1,3-Diimino-5-methylisoindoline nitrate 176788-94-6, 1,3-Diimino-5-tert-butylisoindoline nitrate 176788-95-7, 1,3-Diimino-5-tert-amylisoindoline nitrate 176788-96-8, 1,3-Diimino-4-ethoxyisoindoline nitrate 176788-97-9, 1,3-Diimino-4-(2,4-dimethylpentoxy)isoindoline nitrate 176788-98-0, 1,3-Diimino-4-heptyloxyisoindoline nitrate 176788-99-1, 1,3-Diimino-4-heptylthioisoindoline nitrate 176789-00-7, 1,3-Diimino-4,7-dihydroxyisoindoline nitrate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of 1,3- ***diiminoisoindoline*** derivs. by neutralization of nitrate salt with potassium hydroxide in ammoniacal ethanol)

IT 3468-11-9P, 1,3- ***Diiminoisoindoline*** 52319-97-8P, 1,3-Diimino-5-tert-butylisoindoline 136854-07-4P, 1,3-Diimino-5-methylisoindoline 167861-12-3P, 1,3-Diimino-5-tert-amylisoindoline 168410-08-0P, 1,3-Diimino-4-ethoxyisoindoline 168410-09-1P, 1,3-Diimino-4-heptyloxyisoindoline 168410-10-4P, 1,3-Diimino-4-

heptylthioisindoline 168410-11-5P, 1,3-Diimino-4,7-dihydroxyisindoline
172902-35-1P, 1,3-Diimino-4-(2,4-dimethylpentoxy)isindoline
RL: SPN (Synthetic preparation); PREP (Preparation)
* (prepn. of 1,3- ***diiminoisindoline*** derivs. by neutralization
of nitrate salt with potassium hydroxide in ammoniacal ethanol)

L10 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1996:34899 CAPLUS

DN 124:160330

ED Entered STN: 18 Jan 1996

TI Hydroxygallium phthalocyanine imaging member and process

IN Mayo, James D.; Duff, James M.; Hsiao, Cheng K.; Gardner, Sandra J.;
Keoshkerian, Barkev

PA Xerox Corp., USA

SO U.S., 24 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C09B067-50

INCL 540141000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5473064	A	19951205	US 1993-169486	19931220
PRAI	US 1993-169486		19931220		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5473064	ICM	C09B067-50
	INCL	540141000
	IPCI	C09B0067-50 [ICM,6]
	IPCR	C09B0067-00 [I,C]; C09B0067-12 [I,A]; C09B0067-50 [I,A]
	NCL	540/141.000; 540/140.000

OS MARPAT 124:160330

AB A process for the prepn. of hydroxygallium phthalocyanine which comprises
hydrolysis of a halogallium ***phthalocyanine*** ***precursor***
to hydroxygallium ***phthalocyanine*** and conversion of said
resulting hydroxygallium phthalocyanine to type V hydroxygallium
phthalocyanine by contacting said resulting hydroxygallium phthalocyanine
with an org. solvent, wherein said ***precursor*** halogallium
phthalocyanine is obtained by the reaction of a gallium halide
with ***diiminoisindolene*** in an org. solvent.

ST hydroxygallium phthalocyanine electrophotog photoreceptor

IT Electrophotographic photoconductors and photoreceptors
(hydroxygallium phthalocyanine prepn. and use as photoconductor for)

IT 19717-79-4P, Chlorogallium phthalocyanine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. and reaction in prepg. hydroxygallium phthalocyanine for
electrophotog photoreceptor)

IT 63371-84-6P, Hydroxygallium phthalocyanine

RL: SPN (Synthetic preparation); TEM (Technical or engineered material
use); PREP (Preparation); USES (Uses)

(prepn. and use as photoconductor for electrophotog photoreceptor)

IT 91-15-6, 1,2-Benzenedicarbonitrile 3468-11-9, 1,3-
Diiminoisindoline 13450-90-3, Gallium chloride

RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction in prepg. hydroxygallium phthalocyanine for electrophotog
photoreceptor)

L10 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1995:576764 CAPLUS

DN 122:326488

ED Entered STN: 27 May 1995

TI Hydroxygallium phthalocyanine photoconductive imaging members

IN Mayo, James D.; Duff, James M.; Hsiao, Cheng K.; Gardner, Sandra J.;
Keoshkerian, Barkev

PA Xerox Corp., USA

SO U.S., 22 pp.

CODEN: USXXAM

DT Patent
LA English
IC ICM G03G005-06
INCL 430058000
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)
Section cross-reference(s): 78

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5407766	A	19950418	US 1993-169900	19931220
PRAI	US 1993-169900		19931220		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 5407766	ICM	G03G005-06
	INCL	430058000
	IPCI	G03G0005-06 [ICM,6]
	IPCR	G03G0005-06 [I,A]; G03G0005-06 [I,C]
	NCL	430/059.400; 430/078.000

AB A process for the prepn. of hydroxygallium phthalocyanine and elements
contg. same comprises the synthesis of a ***precursor*** halogallium
phthalocyanine by the reaction of a ***diiminoisoindolene***
with Ga acetylacetonate; hydrolysis thereof to hydroxygallium
phthalocyanine; and conversion of the resulting hydroxygallium
phthalocyanine obtained to type V hydroxygallium phthalocyanine by
contacting the resulting hydroxygallium phthalocyanine with an org.
solvent.

ST hydroxygallium phthalocyanine electrophotog photoconductor
IT Electrophotographic photoconductors and photoreceptors
(type V hydroxygallium phthalocyanine prepn.)
IT 67-68-5, Dimethylsulfoxide, uses 68-12-2, N,N-Dimethylformamide, uses
91-22-5, Quinoline, uses 872-50-4, n-Methylpyrrolidone, uses
RL: MOA (Modifier or additive use); USES (Uses)
(type V hydroxygallium phthalocyanine prepn.)
IT 3468-11-9 14405-43-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(type V hydroxygallium phthalocyanine prepn.)
IT 14285-65-5P, Gallium Phthalocyanine 19717-79-4P, Chlorogallium
phthalocyanine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(type V hydroxygallium phthalocyanine prepn.)
IT 63371-84-6P, Hydroxygallium phthalocyanine
RL: DEV (Device component use); SPN (Synthetic preparation); PREP
(Preparation); USES (Uses)
(type V; type V hydroxygallium phthalocyanine prepn.)

L10 ANSWER 10 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:711919 CAPLUS

DN 121:311919

ED Entered STN: 24 Dec 1994

TI Preparation of novel crystal hydroxy metal phthalocyanine pigment used in
electrophotographic photoreceptor as charge-generating material

IN Nukada, Katsumi; Daimon, Katsumi; Sakaguchi, Yasuo

PA Fuji Xerox Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B067-50

ICS G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other
Reprographic Processes)

Section cross-reference(s): 41

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06122833	A2	19940506	JP 1992-296564	19921009
	US 5360475	A	19941101	US 1993-131747	19931005
PRAI	JP 1992-296564	A	19921009		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 06122833	ICM	C09B067-50
	ICS	G03G005-06
	IPCI	C09B0067-50 [ICM,5]; G03G0005-06 [ICS,5]
US 5360475	IPCI	C09B0067-50 [ICM,5]
	IPCR	C09B0067-00 [I,C]; C09B0067-12 [I,A]; C09B0067-16 [I,A]; G03G0005-06 [I,A]; G03G0005-06 [I,C]
	NCL	106/410.000; 106/413.000; 540/128.000; 540/139.000; 540/140.000; 540/141.000
AB	The prepn. includes treating a ***precursor*** of the hydroxy metal ***phthalocyanine*** pigment with an acid to give the pigment, then treating with a solvent without neutralizing.	
ST	crystal hydroxy metal phthalocyanine pigment prepn; phthalocyanine pigment electrophotog photoreceptor	
IT	Electrophotographic photoconductors and photoreceptors (prepn. of novel crystal hydroxy metal phthalocyanine pigment for)	
IT	67-56-1, Methanol, uses 68-12-2, N,N-Dimethyl formamide, uses 90-13-1, 1-Chloro naphthalene 91-22-5, Quinoline, uses 100-51-6, Benzyl alcohol, uses 107-21-1, Ethylene glycol, uses 109-99-9, THF, uses 123-86-4, n-Butyl acetate 2108-20-5, Chloro methylene	
RL:	TEM (Technical or engineered material use); USES (Uses) (as solvent for treating hydroxy metal phthalocyanine pigment to give novel crystal)	
IT	3468-11-9, 1,3- ***Diiminoisoidindoline*** 13450-90-3, Gallium chloride	
RL:	RCT (Reactant); RACT (Reactant or reagent) (for prepg. ***precursor*** of hydroxy metal ***phthalocyanine*** pigment)	
IT	63371-84-6P, Hydroxy gallium phthalocyanine	
RL:	DEV (Device component use); SPN (Synthetic preparation); PREP (Preparation); USES (Uses) (prepd. as crystal hydroxy metal phthalocyanine pigment)	
IT	19717-79-4P, Chloro gallium ***phthalocyanine***	
RL:	RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent) (prepd. as ***precursor*** of hydroxy metal ***phthalocyanine*** pigment)	
IT	7664-93-9, Sulfuric acid, uses	
RL:	CAT (Catalyst use); USES (Uses) (used in treating ***precursor*** of hydroxy metal ***phthalocyanine*** pigment to give pigment)	

L10 ANSWER 11 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN

AN 1994:284987 CAPLUS

DN 120:284987

ED Entered STN: 28 May 1994

TI Preparation of purified hydroxymetal phthalocyanine and electrophotographic photoreceptor

IN Nukada, Katsumi; Daimon, Katsumi

PA Fuji Xerox Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09B047-18

ICS G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 06001923	A2	19940111	JP 1992-181618	19920617
JP 3178484	B2	20010618		
US 5463041	A	19951031	US 1993-76100	19930614
PRAI JP 1992-181618	A	19920617		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
JP 06001923	ICM	C09B047-18
	ICS	G03G005-06
	IPCI	C09B0047-18 [ICM,5]; G03G0005-06 [ICS,5]
US 5463041	IPCI	C09B0067-12 [ICM,6]

IPCR C09B0067-00 [I,C]; C09B0067-12 [I,A]; C09B0067-16
[I,A]; G03G0005-06 [I,A]; G03G0005-06 [I,C]
NCL 540/139.000; 540/140.000
ECLA C09B067/00B6B; C09B067/00B5D; G03G005/06H6

AB The title prepn. involves acid-pasting a hydroxymetal
phthalocyanine (HOMPC) ***precursor*** with a solvent or a
basic solvent and heating HOMPC in a basic solvent. In the acid pasting
(using H2SO4) HOMPC may be crystd. by H2O or a basic aq. soln. The
crystd. HOMPC may be purified by heating in an alkali hydroxide (NaOH or
KOH). The metal of HOMPC may be Al, Ga, In, Si, Ge, or Sn. The purified
hydroxygallium phthalocyanine may be treated with a solvent (for crystal
type-transition) to have intense x-ray powder diffraction peaks at Bragg
angle (2.theta. +/- 0.2.degree.) (1) 7.5, 9.9, 12.5, 16.3, 18.6, 25.1,
28.3, (2) 7.7, 16.5, 25.1, 26.6, (3) 7.9, 16.5, 24.4, 27.6, (4) 7.0, 7.5,
10.5, 11.7, 12.7, 17.3, 18.1, 24.5, 26.2, 27.1, or (5) 6.8, 12.8, 15.8,
26.0. The title photoreceptor has a photosensitive layer contg. .gtoreq.1
purified HOMPC.
ST photoreceptor electrophotog hydroxymetal phthalocyanine purifn
IT Electrophotographic photoconductors and photoreceptors
(hydroxymetal phthalocyanines for, purifn. of)
IT 12102-36-2, Dihydroxytin phthalocyanine 15554-15-1, Hydroxyaluminum
phthalocyanine 16971-95-2, Dihydroxygermanium phthalocyanine
19333-15-4, Dihydroxysilicon phthalocyanine 63371-84-6, Hydroxygallium
phthalocyanine 106632-90-0, Hydroxyindium phthalocyanine
RL: USES (Uses)
(electrophotog. photoreceptors contg., prepn. and purifn. of)
IT 19717-79-4P, Chlorogallium phthalocyanine
RL: PREP (Preparation)
(prepn. and acid-pasting of)
IT 13450-90-3, Gallium trichloride
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with ***diiminoisoindoline***)
IT 3468-11-9, 1,3- ***Diiminoisoindoline***
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, with gallium trichloride)

L10 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1977:424790 CAPLUS
DN 87:24790
ED Entered STN: 12 May 1984
TI Commercial phthalocyanogen blue 4ZM
IN Borzova, T. F.; Stepanov, A. S.; Kissin, B. I.; Taran, M. N.; Ermilov, V.
G.; Trifonov, I. V.
PA Ivanovo Scientific-Research Institute of the Cotton-Paper Industry, USSR
SO U.S.S.R.
From: Otkrytiya, Izobret., Prom. Obraztsy, Tovarnye Znaki 1977, 54(12),
73.
CODEN: URXXAF

DT Patent
LA Russian
IC C09B067-00
CC 40-8 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	SU 552343	T	19770330	SU 1975-2168419	19750825
PRAI	SU 1975-2168419	A	19750825		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
SU 552343	IC	C09B067-00
	IPCI	C09B0067-00
	IPCR	C09B0067-00 [I,A]; C09B0067-00 [I,C]

AB The title product [12790-68-0] was produced by treating 1,3-
diiminoisoindoline nitrate (I) [23395-08-6] with urea [57-13-6]
and water in the presence of NaOH, followed by dehydration of the
resulting mixt. at 45-50.degree. in vacuo and sepn. of the desired
product. The I/urea ratio was maintained at 1:1, the dehydration was
continued to final moisture content 5-6%, and triethanolamine [102-71-6]
and wetting agent OP-7 or OP-10 (38-40% and 10-2% by wt. of I, resp.) were
introduced into the dehydrated mixt. before sepn. of the product.
ST Phthalocyanogen Blue 4ZM; ***diiminoisoindoline*** nitrate dye

precursor; ***phthalocyanine*** dye ***precursor*** ; urea
 diiminoisindoline dye compn
 IT 102-71-6, uses and miscellaneous
 RL: USES (Uses)
 (in Phthalocyanogen Blue 4ZM manuf.)
 IT 12790-68-0P
 RL: IMF (Industrial manufacture); PREP (Preparation)
 (manuf. of)
 IT 574-93-6D, dyes
 RL: USES (Uses)
 (precursor for)
 IT 23395-08-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with alk. aq. urea, in Phthalocyanogen Blue 4ZM manuf.)
 IT 57-13-6, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with ***diiminoisindoline*** nitrate in presence of
 aq. sodium hydroxide)
 IT 1310-73-2, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with ***diiminoisindoline*** nitrate in presence of
 urea)

L10 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
 AN 1973:531407 CAPLUS
 DN 79:131407
 ED Entered STN: 12 May 1984
 TI Nucleation-recording medium comprising a photoconductor, a
 nucleation-enhancing metal salt, and a phthalocyanine dye former
 IN Kaspaul, Alfred F.; Kaspaul, Erika E.
 PA Hughes Aircraft Co.
 SO U.S., 10 pp.
 CODEN: USXXAM
 DT Patent
 LA English
 IC G03C
 INCL 096090000R
 CC 74-8 (Radiation Chemistry, Photochemistry, and Photographic Processes)
 FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3736142	A	19730529	US 1971-196170	19711105
PRAI US 1971-196170	A	19711105		

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
US 3736142	IC	G03C
	INCL	096090000R
	IPCI	G03C0001-52
	NCL	430/541.000; 106/410.000; 106/413.000; 250/475.200; 430/542.000; 430/559.000

AB Compds. forming phthalocyanine dyes are used to enhance the reflective
 optical d. and stability of images obtained by the development of
 latent-image nucleation sites by selective metal vapor deposition. The
 image d.-enhancing and stabilizing materials are monoiminophthalimide,
 1,3- ***diiminoisindole***, dimethylfumaronitrile,
 2,3-naphthalenedicarbonitrile, dimethylmalonitrile,
 tetrahydrophtalonitrile, and citracononitrile.
 ST electron beam imaging; ion beam imaging; metal vapor deposition imaging;
 phthalocyanine metal deposition imaging
 IT Recording
 (electron beam-sensitive and photosensitive, on nucleation recording
 compns. contg. ***phthalocyanine*** ***precursors*** for)
 IT Photographic emulsions
 (silver-free, nucleation compns. contg. ***phthalocyanine***
 precursors for)
 IT 9003-55-8
 RL: USES (Uses)
 (binder, for nucleation recording materials)
 IT 50935-37-0
 RL: USES (Uses)
 (binder, for nucleation recording materials for electron beam and

photon recording)
IT 1314-13-2, uses and miscellaneous 15731-16-5
RL: USES (Uses)
(nucleation recording materials contg., for electron beam and photon recording)
IT 91-15-6
RL: USES (Uses)
(nucleation recording materials contg., for increased image d. and stability)

L10 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1957:95009 CAPLUS
DN 51:95009

OREF 51:17184f-g
ED Entered STN: 22 Apr 2001
TI Copper ***phthalocyanine*** ***precursor***
IN Perkins, Melvin A.
DT Patent
LA Unavailable
CC 25 (Dyes and Textiles Chemistry)

FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI US 2795588 19570611 US 1956-584200 19560511

CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

US 2795588 IPCR C09B0047-04 [I,A]; C09B0047-04 [I,C]; C09B0047-073 [I,A]
NCL 540/142.000; 540/143.000

AB The prepn. of I from 1,3- ***diiminoisoindoline*** (IV) (cf. U.S. 2,772,285, C.A. 51, 4723c) can also be carried out in a sulfoxide solvent. Thus, a mixt. of IV 12 and anhyd. CuCl₂ (V) 1.8 is added to II 70 parts; the mixt. is stirred and heated to 75.degree. over 2 hrs., then to 91.degree. over 1.5 hrs. and filtered hot. I is sepd. as a light-tan powder by drowning in water, filtering and drying. The wet cake can be converted to cryst. I by the procedure of U.S. 2,795,586 (cf. preceding abstr.). Similarly, a mixt. of IV-HNO₃ 12.5 and NaOH 2.4 is added to II 150, stirred 1 hr. at 20-30.degree., treated with V 1.4 parts, stirred 45 min. at 85-90.degree., clarified and drowned in H₂O. Cf. C.A. 51, 3154f, 8144c.

IT 574-93-6, ***Phthalocyanine***
(copper derivs., ***precursor***)

L10 ANSWER 15 OF 15 CAPLUS COPYRIGHT 2006 ACS on STN
AN 1956:93263 CAPLUS
DN 50:93263

OREF 50:17464i,17465a
ED Entered STN: 22 Apr 2001
TI ***Leuco*** copper ***phthalocyanine***
IN Brooks, Robert A.
PA E. I. du Pont de Nemours & Co.
DT Patent
LA Unavailable
CC 25 (Dyes and Textiles Chemistry)

FAN.CNT 1
PATENT NO. KIND DATE APPLICATION NO. DATE

PI GB 748854 19560509 GB 1953-33286 19531201

CLASS
PATENT NO. CLASS PATENT FAMILY CLASSIFICATION CODES

GB 748854 IPCR C09B0047-04 [I,C]; C09B0047-073 [I,A]

AB 1,3- ***Diiminoisoindoline*** (I), approx. 6 moles, or the 4,5-benzo analog (II) thereof is heated with a cupric salt, approx. 1 mole, in an inert org. solvent at 55-95.degree.. Thus, 34.8 parts I and 5.4 parts anhyd. CuCl₂ are added to 200 parts dry ethylene glycol monomethyl ether. The slurry is heated to 80.degree.; after 90 min. at this temp. the mixt. is poured into 2000 parts cold H₂O, and the product filtered off, washed with H₂O, and dried at room temp. It yields pure Cu phthalocyanine on reduction with ascorbic acid. II can be obtained by heating 1 part 1,2-dicyanonaphthalene with 4 parts liquid NH₃ in a sealed vessel at

125.degree. for 4 hrs.
IT Tetrabenzophthalocyanine, copper deriv.
(and its leuco form)
IT 858504-63-9, Benz[e]isoindoline, 1,3-diimino-
(and phthalocyanine analogs from)
IT 7440-50-8, Copper
(compds., with phthalocyanine derivs.)
IT 128953-47-9, Phthalocyanine, copper deriv.
(its tetrabenz analog and their leuco forms)

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1 S US 2005-0053864/PN

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L5 2 S L3 AND (PHTHALOCYAN? OR BLUE)

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L8 234 S L6 OR L7
L9 31 S (THERMOGRAPHIC OR THERMO OR HEAT OR IR OR INFRARED) AND L8
L10 15 S (DIIMINOISOINDOL? OR SARCOSINE OR HYDROXYETHYLSARCOSINE) AND

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visualization results
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NEWS 15 FEB 28 REGISTRY/ZREGISTRY enhanced with more experimental spectral
property data
NEWS 16 MAR 01 INSPEC reloaded and enhanced
NEWS 17 MAR 03 Updates in PATDPA; addition of IPC 8 data without attributes
NEWS 18 MAR 08 X.25 communication option no longer available after June 2006
NEWS 19 MAR 22 EMBASE is now updated on a daily basis
NEWS 20 APR 03 New IPC 8 fields and IPC thesaurus added to PATDPAFULL
NEWS 21 APR 03 Bibliographic data updates resume; new IPC 8 fields and IPC
thesaurus added in PCTFULL
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